Best of
Dragon®
Magazine

Vol. V

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Contents

Introduction

Yes, it's another Best of DRAGON® Magazine anthology. But we did things a little differently this time. This magazine is *packed*, and you'll find more different subjects covered than you can shake a wand at.

In Volumes II, III, and IV, we used a category approach: Select articles that fit into general subject areas, package all the related articles as a section of the anthology, and you wind up with an organized, rigidly structured collection. That approach worked well for three anthologies (and may work again in the future). But when it came time to start work on Volume V, it quickly became apparent that a free-form approach was what we needed. No categories, no groupings, no particular order.

Why? Because that was the only way we could pursue our primary goal: choosing the *best* articles from those available. Several articles that deserved to be "resurrected" didn't fit neatly into a category, and we didn't want to let our goal be compromised by any artificial rules about how the anthology had to look.

Our second goal was to get as many articles, as many words, into these 80 pages as possible. This book contains none of the artwork that accompanied these articles when they first appeared, except for one piece that contains essential information (see "A second volley," and you'll see why) and a few cartoons we used to plug the small spots where articles wouldn't fit. We figured you'd prefer information over illustration, and here's hoping we were right.

Since this anthology isn't split into sections, we don't have to spend pages to separate and introduce the different parts. The result: 76 pages (not counting the first three and the last one) crammed as full as we could cram them.

So, we seem to have achieved our second goal — but, hey, that was the easy one. What about our primary goal — did we select the *best* articles? *We* think we did, but of course, we can't really answer that question for ourselves. What matters is whether *you* think we did.

Welcome to Volume V of the Best of DRAGON Magazine. That's Volume Five in Roman numerals, but this time the "V" also stands for Variety. Dig in, and enjoy.

Thrills and chills

Adventuring in the Ice Age

by Arthur Collins

Many are the monsters from the Pleistocene Epoch roaming the pages of the AD&D® game's *Monster Manual*. But, for the most part, I've let them stay there. I mean, why would players want to go adventuring in the Ice Age? There's no metal-working — ergo, no armor, no steel for weapons, and no *money*. There's no civilization — ergo, no castles, no cities, no society (as we tend to think of it) in which to adventure. There's no agriculture, no commerce, and no writing; just lots of ice, dangerous animals, and death lurking around every corner. So what is there about the Ice Age that could hold a player's attention? The answer is: lots.

After reading *The Clan of the Cave Bear* by Jean Auel, I got a hankering to adventure in the Pleistocene. Cavehalflings danced before my eyes, blizzards blew through my fevered brain, and *survival* became the only game in town. In the end, I thought of three basic role-playing modes that could send one off into the Ice Age.

Number One: The Clan. The object of this mode is the preservation of the clan, a small tribal society of hunter-gatherers who must depend on each other to survive. I drew up a clan of about 20 halflings and singled out the player character types: 1st-level individuals who can rise in the clan pecking order, becoming its leaders and providers. The challenge to the players is to ensure the clan's survival in an incredibly hostile world. Food must be secured. Shelter must be found. Outsiders must be kept away. Offspring must be propagated. Weather, predators, and disease must be overcome. And everything hangs on the intelligence and cooperation of the party (the group of PCs within the clan). In short, even with no castles or coins, this sort of situation has all the makings of a desperate and noble enterprise.

Number Two: The Individual. Take a 1st-level player character, make him an outcast or an orphan, and set him down to make his way *alone* in the savagery of the Pleistocene. Very challenging! This even has possibilities for solo adventuring. The object here is to explore while securing food, shelter, and other necessities. The individual must survive. And along the way, this hero could build up followers and henchmen to form the nucleus of a new clan — the surest ticket to survival.

Number Three: Mix and Match. A regular party of adventurers, bored with dungeons and slums, might go for a trip to the Ice Age. Maybe they get dumped there through the ire of a super-powerful wizard. Maybe they enter a time warp. Maybe there is a corner of your campaign area that never got over the glacial period. Or, you could dump some Ice Age characters and creatures into a regular AD&D campaign. Either way, you can make players see things through new eyes, and have a lot of fun besides.

Okay. Having justified the trip, then *how* does one go about setting up a Pleistocene campaign? The first thing is to understand what the absence of civilization means. No cities. No structures more complicated than a lean-to, a hide tent, or a cage. No agriculture beyond gathering whatever grows where it happens to grow. No politics beyond the clan/tribal gathering or an occasional encounter with outsiders. No organized war. No crowds. No books, scrolls, glass, wheels, metal, woven fabrics, or machines. Not even much leisure time.

So what do Pleistocene folks *do*? Basically, they work, most of the time either gathering food, hunting food, processing food, or manufacturing clothing, tools, and weapons. (Except in winter, when they hole up in their caves, snowed in, dealing with a monumental case of community cabin fever.) "Adventuring" consists mostly of hunting trips, migrations, going to gatherings every few years, and cop-

ing with an occasional raid by (or *on*) a pack of predatory creatures.

Of course, there is story-telling, worship, play, and even romance, but all these are an integral part of clan life; there are very few solitary pursuits in this society. Numbers mean strength, but too many mouths strip an area of food. Balancing out the equation of survival in your favor is the only way to keep alive, and an individual acting with an individual purpose has almost *no* chance of surviving. It's a hard life, and it never gets easier. Since treasure is almost non-existent (except for rough gems), the only way to rise in levels is to kill beasts and defend the clan. Experience can be gained in no other way. So let us consider how Ice Agers spend their time.

To nutritionally sustain one person for one month requires one hit die of meat-bearing animal or fish, plus two bushels of roots, grains, and assorted vegetable matter. Children require half of what adults do, but do not contribute significant labor for our broad generalizations. (A month has four weeks, and there are 13 months in a solar year.)

Keep in mind that animal and vegetable sources must be kept in this 1 HD-to-2 bushels ratio. The life of the clan requires both sorts of nutrients. Game and fish provide fur, leather, fat for lighting, waterskins, ivory, and other materials in addition to food. The grains and roots gathered also will include reeds for weaving bags, sticks to make into utensils, medicinal plants, and so forth. If the food ratio gets lopsided, the clan can survive by consuming an additional hit die of meat per person per month in place of the two bushels of grains, or vice versa. But, in these cases, the DM should consider incorporating such effects as an increased chance for disease (because of vitamin deficiency), a higher likelihood of important equipment (such as protective clothing) wearing out, and so forth. The DM can assume that as long as both proportions are supplied, most of the necessities of living will be taken care of. The only alternative to these general rules is to keep a detailed account of everybody's production and consumption of *everything*, which would be a colossal bore.

Thus, a clan of 15 adults and 4 children means 17 full consumers. In one year, they must kill, gather, and process 221 hit dice of game (above and beyond an occasional rabbit or pigeon) and 442 bushels of wild grains, yams, seeds, and so on. The task for the summer is not only to keep alive, but to store away stuff for the winter, when one can neither hunt nor gather. Starvation, if it happens, usually comes in early spring, when there is no food to be found and the winter's stores are depleted (or ruined by vermin).

The facts of Ice Age life

Gathering of grains, plants, and so forth may take place in earnest starting the first week after the last frost (usually the 11th week of spring) up until four weeks after the first frost of the coming winter (usually the 2nd week in autumn). The growing season averages 18 weeks; during the 7th through 11th weeks, gathering is at 150% efficiency (this is when the "crops" are most bountiful and convenient to pick). One adult may gather 1½ bushels of usable stuff in a day. The same area cannot be gathered in more than one week in six. Note also that mountains contain vegetation, but nothing worth picking at. The DM may want to make an assessment of the relative bounty of the area; there is no distinction made here between hills, plains, forests, and swamps. Edible stuff exists in all these places.

Hunting, unlike gathering, is not an "automatic" activity. This is where the DM and players can get down to adventuring. You must work for every hit die of beast trapped and hunted. I would allow a

basic 1 in 12 chance of an encounter twice or thrice a day (morning and evening, plus one more during the night, if the party is camping out). Not only game would be encountered, but also predators, vermin, and other creatures (see encounter tables). Good hunters (especially rangers) could probably track well enough to better the odds of having an encounter.

However, hunting and gathering are both alike in one respect: They are only a *part* of life. Only two days per week per person can be spent doing either or both. The other five days are taken up with the other business of life: processing food, making weapons and clothes, repairing and manufacturing the stuff of daily existence, and worshiping. Groups from the clan can take hunting trips of seven days' duration once in every five-week period (weather permitting).

This all is not to suggest that all life means is work, work, and more work; in general, one must accept major claims on one's time for the purpose of ensuring survival. Ceremonies, story-telling, raids, and daily problems "caused" by the DM may go on as one pleases without causing any problems in simulating the survival needs of the Pleistocene. But limiting hunting and gathering to only two days a week per person and staking out most of the rest of an individual's time as already obligated to some thing or another is a game device to ensure that sufficient time is spent on necessities without the players having to keep track of how many flint knives and fur robes they make. Flexibility in the monitoring of clan activities is required; the DM should note an increasing disruption of the clan's lifestyle only when a significant number of man-hours are lost. When sickness, injury, raids, or whatnot cause the number of "work days" to fall below the minimum, the DM may announce that such-and-such piece of equipment has worn out, or the clan's supply of this or that material has been exhausted. Rectifying this problem then becomes the challenge to meet. The DM should read *The Clan of the Cave Bear* and other fiction based on the Ice Age to get a feel for the working rhythm of this kind of society.

Generally, males hunt and females gather. This is not a sexist thing, but merely a wise division of labor. Both have much to do, and division of labor is a wise idea. Survival is dependent on both game and plants. It makes good sense to see to both needs at the same time.

Races among the glaciers

The lack of agriculture and technology in the Pleistocene affects each of the player-character races. Cavemen (as in the *Monster Manual*) require no adjustments to their specifics to place in the Pleistocene world. For that matter, a group of nomads (afoot; horses and cattle have not been domesticated yet) armed with stone weapons would fit right in. So would stone-age berserkers. But PC races are another matter; some thought needs to be given to their cultural differences.

Dwarves would be very few, secreted in their deep places. To these types alone, if the DM allows it at all, some primitive metallurgy could be attributed. High-level tribal leaders might have crude metal weapons (+2, at least in comparison with the normal stone weapons) and studded leather armor. This benefit would place dwarves higher on the technological ladder than any other race. Therefore they ought to be *very* rare.

Elves would be +1 to hit with spear and sling (instead of bow and sword, neither having been invented). While all races would have discovered ritual fermented or narcotic potations, to the elves would belong the specialty of making wine from wild grapes. Also, only sylvan elves would be around in Ice Age times.

Gnomes, the best stonecutters in the usual AD&D world, would be the best flintworkers in the Ice Age. All their stone weapons should be considered +1 to hit and damage relative to those produced by non-gnomes.

Half-elves would be virtually nonexistent. Their racial specialty would be in woodcraft. Rangers, druids, and bards lead this society.

Halflings are the tamers of wild dogs. While other groups might capture such an animal, only the halflings have domesticated them and learned to breed them. They even use them in hunting. A clan will consist of all tallfellows, all hairfeet, or all stouts, with no intermingling of the various racial strains and no "half-breed" halflings.

Half-orcs are the only race to use poisoned darts, and are the

inventors of the blowgun used to fire them.

Humans have the advantage of having all classes open to them, with unlimited advancement potential, as is the case in the AD&D rules.

Cavemen (humans), should the DM allow such types to be player characters, should be +1 with a spear and -1 with all throwing weapons.

Considering that a clan would be xenophobic in the extreme, certain problems are presented. If the player-character group must be all dwarves or all elves, for instance, then eligibility in certain character classes needs to be extended to the race in question. Also, the level of technology and civilization (or lack thereof) in the Pleistocene epoch influences the maximum level attainable in certain character classes. The table in the *Players Handbook* on "Class Level Limitations" is modified for the Ice Age, so that it looks like this table:

	Dw	Elf	Gn	½-Elf	Hlf	½-Orc	Hum
CLERIC	8	7	7	5	no	4	U
Druid	no	no	no	U	6	no	U
FIGHTER	9	7	6	8	6	10	U
Ranger	no	no	no	8	no	no	U
MAGIC-USER	no	11	no	8	no	no	U
Illusionist	no	no	7	no	no	no	U
THIEF	5	no	no	5	U	5	U
Assassin	no	no	no	no	no	U	U
Bard	no	no	no	U	6	U	U

All restrictions noted in the *Players Handbook* not changed above should be observed. Note that paladins, cavaliers, and monks simply do not exist. Thieves are very rare (What is there to steal? Where is the society to steal from?), but the class is open to dwarves (so they can sneak around dungeons), to halflings and half-elves (to enable them to be used as scouts, and as preparatory to bard status), and to half-orcs (who also use thieving ability to act as scouts, and are nasty to boot). Humans can be thieves because no class is closed to them. The assassin class is a half-orc prerogative, but of course also open to humans. [*Though no guilds would be present, assassins could be thought of as commando warriors, used as scouts, spies, or advance fighters who slay from ambush or with stealth. They could also get rid of undesirable tribesmen at the direction of their chieftains. — Editor*]

Note that even though the cleric class is opened to PC dwarves, elves, and gnomes, non-human PCs still must be multi-classed clerics. Halflings are allowed to be bards because they can also be druids, fighters, and thieves, the three classes represented within the bard class. The DM might consider including shamans, witch doctors, and witches (from DRAGON issue #43) as (rare) character classes.

Language also presents a problem. There is no "common" tongue, nor do demi-humans speak other than their own languages. Cavemen and humans speak different tongues. What language a speaking dragon uses is a matter for the DM to decide. It would depend on what humanoids the dragon has associated with, I suppose.

The arms race, or lack thereof

The level of Pleistocene weapons technology is very low. The only "armor" usually available is the equivalent of leather or padded armor (hides and furs). Shields are rare, since there is no military science. You don't use shields in hunting, so unless you encounter a warlike race that uses shields, you would have no knowledge of them. Thus, the best non-magical armor class which can be achieved is AC 3 (leather and shield, on a character with 18 dexterity). The tables on missile fire (cover and concealment adjustments (page 64, *Dungeon Masters Guide*) would play a large part in the hide-and-seek style of warfare dictated by Ice Age technology.

The sling enjoys great prominence among missile weapons in the Ice Age, since bows have not been invented. The table at the top of the following column illustrates the severely limited extent of weapons technology in the Pleistocene era.

	Damage		Fire rate	Range		
	S/M	L		S	M	L
Stone knife	1-4	1-3	—¹	—	—	—
Stone axe	1-6	1-4	—¹	—	—	—
Stone hammer	2-5	1-4	1	1	2	3
Spear²	1-6	1-8	1	1	2	3
Bola (trip)¹	1-3	1-2	1	2	4	6
Sling (stones only)	1-4	1-4	1	4	8	16
Staff	1-6	1-6	—	—	—	—
Club	1-6	1-3	1	1	2	3
Javelin²	1-6	1-6	1	2	4	6
Dart (blowgun)	1-3	1-2	3	1½	3	4½
Net (entangle)	—	—	1	½	1	1½
Fist	(⁴)	(⁴)	—	—	—	—
Flaming oil	(⁵)	(⁵)	1	1	2	3

1 — Not balanced for throwing.

2 — Double damage when set vs. charge.

3 — Saving throw vs. trip allowed; monsters with more than 9 HD are not trippable.

4 — See weaponless combat tables.

5 — Splash does 1-3, direct hit 2-12 vs. any size creature.

Religion, magic, and "modern" life

Magic and religion undergo some radical changes in the Pleistocene. Magic items are very, very rare. There are no scrolls, because there is no written language. Magic-users and illusionists employ carved sticks and sacred rocks as mnemonic aids to relearn their spells. The basic form of a magic item is the potion, of which there are many in this herbalist's paradise. Disease and injury are not just mere nuisances; where curative spells are rare (it takes a 5th-level cleric to *cure* disease), such things need attention. The DM must be scrupulous in making disease checks (page 13, *DMG*).

The highly developed religions described in the *Legends & Lore* volume are not much in evidence. Most humans, at least, will be into totemism. Under this system, each person has a totem (guardian spirit). An encounter with a wolf is thus a "divine," or at least uncanny, encounter for someone with a wolf totem.

Lucky and unlucky days play a significant role in the clan's life. The best days for hunting and ceremonies must be chosen. Roll d10 (or have the clan's priest roll, if he is a PC): 1-3 = unlucky day; 4-7 = nothing special; 8-0 = lucky day. An *augury* spell might be used for this purpose. On an unlucky day, the clan (or the person for whom it is unlucky) would have a −1 penalty on all dice rolls, while their opponents would have a +1 adjustment on all rolls. This situation is reversed on a lucky day.

Generally, the divinities and pseudo-divinities from *Legends & Lore* would "fit in" with the Ice Age milieu. Raven, Heng, Hotoru, Shakak (very important), Thunder Bird, Yanauluha, Tobadzistsini, Loviatar, Thrym, Surtur, Prometheus, Norns, and the non-human deities. And so would the hound of ill omen and the Elemental Princes of Evil from the FIEND FOLIO® Tome.

Druidism would be much more primitive and nature-oriented than as presented in *Legends & Lore*. The American Indian mythos drawn from above seems the most congenial to Pleistocene religion, but other likely types have been added. Note that undead and spirit-world (astral) encounters would be very significant in the religious life of the period; not that they should be common, but they would have a telling effect. Dryads and the like would be considered supernatural beings by many races (and so might even elves and gnolls, come to think of it). Consider the paranoia of the time. Everything but one's own clan or tribe is to be feared and viewed as probably hostile.

Your adventure is now almost ready, with only a few more details to consider, like terrain, encounters, weather, and seasons. To make matters simpler, I have simplified the terrain categories in the following Pleistocene encounter tables. "Ruins" do not exist in this era; there has been nothing built to be ruined. Keep in mind the glaciation (and vulcanism?) of the time. This will affect your campaign area.

I have not been picky on the encounter subtables. One is more likely to encounter a badger than a displacer beast any day, now or

then, but I didn't want to be rolling dice forever in setting up an encounter. After the encounter table gives you the sub-table to look at, you may roll to see what is encountered, and then feel free to roll again if you feel what comes up doesn't make sense. Also, *do* adjust the numbers. A herd of game will be much larger in the Pleistocene than a herd of game would be now. Anthropoids would be very few — no "30-300 orcs" encounters. No anthropoid encounter should be more than 2d12 adults, plus 2d4 children. Half of those adults will be females. Probably no more than 40% of all adults would be hunter-fighter types.

PLEISTOCENE ENCOUNTER TABLE

Find column for pertinent terrain type, roll d%, and refer to the subtable for the resulting type of encounter.

Subtable	Plain	Forest	Hills	Mtns.
Aerial	01-15	01-05	01-20	01-30
Anthropoid	16-19	06-12	21-40	31-55
Dungeon/Cavern	—	—	—	—
Fresh Water/Swamp	—	13-20	—	—
Game	20-59	21-35	41-55	56-65
Insectoid	60-67	36-50	56-60	—
Predator	68-92	51-80	61-85	66-80
Reptile	93-97	81-95	86-93	81-00
Salt Water/Seashore	—	—	—	—
Vermin	98-00	96-00	94-00	—

	River, lake, marsh	Sea	Underground
Aerial	01-02	01-05	—
Anthropoid	03-20	06-15	01-20
Dungeon/Cavern	—	—	21-55
Fresh Water/Swamp	21-50	—	56-65
Game	51-60	16-20	66-70
Insectoid	61-70	—	71-80
Predator	71-80	21-30	81-85
Reptile	81-90	31-35	86-95
Salt Water/Seashore	—	36-00	—
Vermin	91-00	—	96-00

Aerial encounter subtable (d12)

1	Bat, giant	7	Hippogriff
2	Blood hawk	8	Owl, giant
3	Eagle, giant	9	Pegasus
4	Dragon or pseudo-dragon	10	Roc
5	Ki-rin	11	Wasp or hornet, giant
6	Griffon	12	Wind walker

Anthropoid encounter subtable (d20)

1-7: Human (roll d6)

1	Berserkers	4	Frost man
2	Cavemen	5	Nomads
3	Character party	6	10% chance divine encounter (see text)

8-10: Demi-human (roll d6)

1	Dwarf	5	Halfling (roll d6:
2	Elf (sylvan)		1-3 = Hairfeet;
3	Gnome		4-5 = Stout;
4	Half-elf		6 = Tallfellow)
		6	Half-orc

11-12: Giant (roll d8)

1	Ettin	5	Giant, mountain
2	Giant, fire	6	Giant, stone
3	Giant, frost	7	Ogre
4	Giant, hill	8	Treant

13-18: Humanoid (roll d20)

1	Bugbear	11	Nymph
2	Doppleganger	12	Ogrillon
3	Dryad	13	Orc
4	Flind	14	Sylph
5	Gnoll	15	Troglodyte
6	Goblin	16	Troll
7	Hobgoblin	17	Troll, giant
8	Kobold	18	Troll, ice
9	Lizard man	19	Umpleby
10	Nixie	20	Yeti

19: Lycanthrope (roll d6)

1	Jackalwere	4	Wererat
2	Werebear	5	Weretiger
3	Wereboar	6	Werewolf

20: Miscellaneous (roll d10)

1	Demon, manes	6	Skeleton
2	Devil, ice	7	Umber hulk
3	Ghost/astral searcher	8	Wight
4	Merman	9	Yellow musk zombie
5	Sahuagin	10	Zombie

Dungeon/cavern encounter subtable (d24)

1	Bat, giant	13	Mimic/Will-o-wisp
2	Black pudding	14	Mold, brown
3	Cold woman*/ Cold Spawn*	15	Mold, yellow
4	Fungi, violet	16	Ochre jelly
5	Gas spore	17	Piercer
6	Gelatinous cube	18	Purple worm
7	Gorgon	19	Roper
8	Gray ooze	20	Salamander
9	Green slime	21	Shambling mound/ Shrieker
10	Lava children	22	Slithering tracker
11	Lizard, subterranean	23	Slug, giant
12	Lurker above/ Trapper	24	Stirge

*— See *Legends & Lore*, page 83.

Fresh water/swamp encounter subtable (d24)

1	Beetle, giant water	13	Lamprey
2	Catoblepas	14	Lamprey, giant
3	Crayfish, giant	15	Leech, giant
4	Crocodile	16	Naga, water
5	Dragon turtle	17	Pike, giant
6	Eel, electric	18	Quipper
7	Eel, weed	19	Spider, giant water
8	Fire toad	20	Toad, giant
9	Frog, giant	21	Toad, ice
10	Frog, killer	22	Toad, poisonous
11	Frog, poisonous	23	Turtle, giant snapping
12	Gar, giant	24	Will-o-wisp/ Mottled worm

Game encounter subtable (d24)

1	Axe Beak	13	Horse, pony
2	Baluchitherium	14	Horse, wild
3	Beaver, giant	15	Irish deer*
4	Boar, giant	16	Mammoth
5	Boar, warthog	17	Mastodon
6	Boar, wild	18	Porcupine, giant
7	Buffalo	19	Ram, giant
8	Bull	20	Rhinoceros, woolly
9	Camel, wild	21	Stag
10	Cattle, wild	22	Stag, giant
11	Flightless bird	23	Titanothere
12	Herd animal	24	Unicorn/rothe

*— Irish deer, like all such beasts, rut in the fall, not the spring. Ignore the *Monster Manual* on this point.

Insectoid/arachnid encounter subtable (d12)

1	Ant, giant	7	Hornet, giant
2	Beetle, bombardier	8	Spider, giant
3	Beetle, boring	9	Spider, huge
4	Beetle, fire	10	Spider, large
5	Beetle, rhino	11	Spider, phase
6	Beetle, stag	12	Wasp, giant

Predator encounter subtable (d30)

1	Anhkheg	16	Jackal
2	Astral wolf*	17	Leopard
3	Badger	18	Lion, mountain
4	Badger, giant	19	Lion, spotted
5	Bear, black	20	Lynx, giant
6	Bear, brown	21	Otter, giant
7	Bear, cave	22	Rat, giant
8	Blink dog	23	Skunk, giant
9	Caterwaul	24	Tiger, sabertooth
10	Devil dog	25	Weasel, giant
11	Displacer beast	26	Wolf
12	Dog, wild	27	Wolf, dire
13	Hoar fox	28	Wolf, winter
14	Hyena	29	Wolverine
15	Hyena, giant	30	Wolverine, giant

*— See *Legends & Lore*, page 82.

Reptile encounter subtable (d20)

1	Dragon, black	11	Lizard, ice
2	Dragon, bronze	12	Lizard, fire
3	Dragon, green	13	Lizard, giant
4	Dragon, red	14	Pseudo-dragon
5	Dragon, white	15	Remorhaz
6	Firedrake	16	Snake, amphisbaena
7	Fire snake	17	Snake, constrictor
8	Hydra	18	Snake, poisonous
9	Hydra, lernaean	19	Snake, spitting
10	Hydra, pyro-	20	Snow serpent*

*— See *Legends & Lore*, p. 87.

Salt water/seashore encounter subtable (d16)

1	Bunyip	9	Lamprey, giant
2	Crab, giant	10	Man-o-war, giant
3	Crocodile, giant	11	Octopus, giant
4	Dolphin	12	Shark, giant
5	Dragon turtle	13	Snake, sea
6	Eel, giant	14	Squid, giant
7	Eel, weed	15	Turtle, giant sea
8	Lamprey	16	Whale

Vermin encounter subtable (d8)

1	Carrion crawler	5	Stirge
2	Centipede, giant	6	Throat leech
3	Ear seeker	7	Tick, giant
4	Rot grub	8	Yellow musk
			creeper

Climate and calendar

Weather in the Pleistocene environment presents many problems and challenges. Taking cold damage is a real possibility in the days of the woolly rhinoceros. Given later in this article are some tables adapted from records of the weather around Hudson Bay, which will enable DMs to simulate Pleistocene climate.

The calendar is simple: four "seasons" of 91 days (13 seven-day weeks) each, plus "Naming Day" on the first day of spring. "Naming Day" would be the time for all babies to receive their totems (or however you decide that should be handled). I would also advise that it be called the official "birthday" of all clan members. That way, you advance the clan a year of age on each Naming Day. It is a day of ceremonies and holiday.

Every four years, add a "Gathering Day" here to even out the calendar. This could be the time for all the clans of the race to gather together for high and holy ceremonies. Or you could give it some other significance, or you've got to incorporate a leap year to keep the calendar straight (at least, by Earth reckoning) — not that Ice Agers would think of it, but it's easy enough to do once you know how.

Pleistocene Campaign Calendar and Average Weekly Temperatures (°F)

Week	Spring	Summer	Fall	Winter
1	9¹	50	35	− 16
2	13	52	31	− 19
3	17	54	27	− 21
4	21	54	22	− 20
5	24	53	16	− 19
6	27	52	11	− 17
7	30	52	6	− 17
8	34	50	2	− 14
9	37	47	− 2	− 10
10	40	44	− 6	− 6
11	44²	42²	− 11	− 2
12	46	40	− 13	4
13	48	38	− 15	7
(averages)	(27)	(48)	(8)	(− 12)

Average yearly temperature: 18°F.

1 — Includes Naming Day (and Gathering Day)
2 — Frost definitely ends in week 11 of spring. It could start as soon as week 11 of summer, giving a growing season of approximately 91 frost-free days.

Temperature changes and their effects

To determine the day's high temperature, roll a d20 on which one set of digits (0-9) is distinguishable from the other. (For this example, we'll say that one set is colored red, the other black.) Read the red numbers from 1-9 as that many degrees *above* the average temperature for that week. Read the black numbers from 0-9 in the

same way, except that these results represent a number of degrees *below* the average. (A result of black 0 means an average day.) If the result is a red 0, roll again and add 10 (if the second result is red) or subtract 10 (if the second result is black), to yield a result in the range of 19 degrees below average to 19 degrees above average temperature.

Example: A red 0 is rolled during the third week of winter, when the average temperature is −21°. The die is rolled again, and a red 3 comes up, so the day is 13° (3 + 10) warmer than usual, and the high temperature that day is −8°F. If a black 6 follows the red 0, the same day would be 16 degrees colder than usual, for a high temperature that day of −37°. The hottest and coldest high readings obtainable using this system are 73° (summer) and −40° (winter).

In such a climate, cold damage and freezing to death become real possibilities. No one in his right mind goes out in a Pleistocene winter if he can avoid it. Cold damage is figured as follows: One makes a saving throw (vs. constitution, as above) every *turn* one is out in the cold. One begins making saving throws at the *equivalent temperature* (see definition below) of −20°. The save is made at +2 at a temperature equivalent to −20°. This adjustment to the saving throw drops by one for every 10° drop in equivalent temperature. Thus, at −30° the save is only at +1; at −120° (and it *does* get that cold), the save is made at −8.

Wearing metal armor (possible only for characters from outside the Pleistocene, obviously enough through the area) further reduces the saving throw vs. cold by −2, and adds an extra point in cold damage each time damage is assessed.

Every turn that a character fails a save vs. cold, he or she takes one point of cold damage for every 10 degrees below zero of equivalent temperature (3 points at −30°, 6 points at −60°, etc.).

In addition, when a character is exposed to the cold and fails a saving throw, there is a 5% chance of losing 1-2 points of constitution, *permanently*, at −10°. This chance of constitution loss increases by an additional 5% for each additional 10 degrees of cold, so that the chance is 20% at −40°. Any loss in constitution requires a system shock check.

Cold also slows down movement, over and above the difficulty of wading through snowdrifts and blizzards. After one hour, movement in the intense cold is slowed to 75% of normal at −20°; 50% of normal at −50°; and 25% of normal at −80°.

Equivalent temperature is merely the actual temperature modified by the wind chill factor — what the air outside *feels* like. The thermometer might read 10°, but if the wind is whipping around at 25 mph, then the temperature feels like −29° to your body, and your body will freeze accordingly. One form of the traditional wind chill table is given below, to help estimate equivalent temperatures.

Temperature drops with altitude, up to a few miles above sea level where it doesn't matter any more. Deduct 1° of actual temperature for every 300 feet of elevation above sea level at the location in question. Then consult the wind chill table to find the equivalent temperature.

WIND CHILL TABLE

Wind speed (mph)	Actual thermometer reading (°F.)									
	50	40	30	20	10	0	− 10	− 20	− 30	− 40
	Equivalent temperature (°F.)									
Calm	50	40	30	20	10	0	− 10	− 20	− 30	− 40
5	48	37	27	16	6	− 5	− 15	− 26	− 36	− 47
10	40	28	16	4	− 9	− 21	− 33	− 46	− 58	− 70
15	36	22	9	− 5	− 18	− 32	− 45	− 58	− 72	− 85
20	32	18	4	− 10	− 25	− 39	− 53	− 67	− 82	− 96
25	30	16	0	− 15	− 29	− 44	− 59	− 74	− 88	− 104
30	28	13	− 2	− 18	− 33	− 48	− 63	− 79	− 94	− 109
35	27	11	− 4	− 20	− 35	− 51	− 67	− 82	− 98	− 113
40	26	10	− 6	− 21	− 37	− 53	− 64	− 85	− 100	− 116

	Danger of freezing exposed flesh:		
(wind speeds greater than 40 mph have little additive effect)	Little danger (to properly clad person)	Increased danger	Great danger

When it rains, it usually snows

The final weather consideration is precipitation. A wind table — not ideal for this purpose, but okay — is found on page 54 of the *DMG*. Again using records from the Hudson Bay area, here is an outline of a subpolar/Pleistocene precipitation schedule:

5% in winter, 7% in spring, 11% in summer, and 6% in autumn. If precipitation is indicated on that day, roll d6 to determine the time of day when the precipitation starts: 1-2, morning; 3-4, evening; 5-6, nighttime.

To determine accumulation and duration of precipitation when it occurs, roll d% and use this table:

Dice	Result
01-07	Storm: 1.9 to 2.4 inches over 1-3 hours
08-20	Heavy: 1.3 to 1.8 inches over 1-6 hours
21-40	Medium: .7 to 1.2 inches over 1-4 hours
41-70	Light: .1 to .6 inches over 1-8 hours
71-00	Drizzle: no appreciable accumulation over 1-10 hours

To determine the exact amount of precipitation, roll d6, each digit

standing for .1 inch of accumulated precipitation; add .6, 1.2, or 1.8, as necessary according to the table above, to yield final numbers in the desired range. This number represents *liquid* accumulation; snowfall of the same intensity would result in *three times* the accumulation of the same amount of rain.

Precipitation varies in form depending on the temperature. At 25° or below, it falls as snow. From 26° to 39°, it is a variety of sleet or freezing rain (30% chance of hail in storm or heavy conditions). Above this (40°+), it is rain (15% chance of hail in storm or heavy conditions). Tornadoes, lightning strikes, flash floods, and so forth are left to the whims of the individual DM. If conditions seem favorable for such an occurrence, assign a percentage chance and roll the dice. Or, if you decide a disaster is needed, whip one out of your bag of tricks.

This article has gone far afield, from considering the reasons for adventuring in the Ice Age, through what is involved in converting races and classes to the Pleistocene cultural level, through clan survival mechanics, and finally to the climate. I hope you begin to see some of the inherent possibilities in playing an AD&D adventure in the Ice Age — perhaps by now, visions of cavahalflings are dancing in *your* head.

Mind of the monster

Give creatures the brains they were born with

by Bruce Humphrey

Monsters may only be supporting actors in the unfolding of events in a role-playing campaign — but the DM and the player characters aren't going to win Oscars for their performances if the supporting cast isn't any good. Handled well, monsters can make an adventure or a campaign unforgettable. Handled poorly, they can drain it of its lifeblood.

Monsters should be treated by the DM with almost as much care as he treats players — perhaps, sometimes, more care. Monsters cannot argue about unfairness or misuse, as players can (and do). The best DMs never lose sight of the fact that monsters are people, too. Like players and player characters, they cannot be ignored or mistreated without this causing serious consequences. A balance must be maintained between characters and monsters for a campaign to maintain its challenge.

One of the problems encountered by some player-groups after a number of journeys in a campaign is monster polarity. After a time, creatures become divided into two groups: the slow-witted and the ultra-cunning. The former attack on sight, disregarding all else and slaying until slain. The latter creatures seldom endanger themselves, usually setting up elaborate traps in which to snare any possible enemies. In a campaign which is polarized like this, few monsters show evidence of any original thought on the part of the DM, and the result is that the most popular adventures are those that become intricate (and artificial) DM traps. This causes monsters to be relegated to the status of second-class dungeon denizens.

Any DM would find it difficult and tedious to create a special monster for every situation. But effort of that scope is unnecessary, anyway; with just a bit of time and thought, a DM can easily add that precious element of uncertainty that makes an adventure more than just an exercise in monster trashing. If the DM keeps players and their characters guessing, all participants will get more out of the campaign, both in terms of enjoyment and intrigue.

A matter of intelligence

Intelligence is a major consideration in any monster's design, but is possibly also the most abused characteristic. Intelligence suffers most from the onset of monster polarity in a campaign. The results are supremely stupid and unbearably cunning competitors for the characters. Both types

become predictable and dull after the first few confrontations. Who says that orcs attack mindlessly and to the last "man"? They are undoubtedly smarter than tigers, so why can they not use the same amount of guile (at least)? Even animals flee when confronted by an opponent they sense they cannot defeat — yet in many campaigns, orcs and goblins habitually throw themselves headlong into battle.

Intelligence is a reflection of how clearly a creature can understand the world around it. This pertains to facts (only), while decisions involving those facts fall into the realm of wisdom. So, while a creature of low intelligence sees only a man with a sword, a creature of genius-level intelligence sees that man as a seasoned warrior, and perceives that the sword seems to have a mind of its own. (Yes, magic weapons can be detected in this fashion.) These two minds see the same form, but one perceives it more clearly and more completely. This does not mean that a highly intelligent creature knows as much about the party as the DM does (only a godlike mind would know nearly as much), but it acts on what it does see (or senses in other ways) much more rapidly than a creature of relatively lower intelligence.

The more intelligent a creature is, the more likely is it to recognize and attempt to neutralize the stronger members of the party. Conversely, the least intelligent monsters tend to pick on what they see as the easiest target in the party — either the closest member or the one who is obviously (sleeping, wounded, being carried, etc.) the least able to protect himself.

A somewhat more intelligent creature (perhaps as high as low/average) will do essentially the same thing, but will be more particular (perhaps realizing that unarmored people — magic-users and thieves — are the most vulnerable). Above this level of intelligence (average or higher), creatures will usually attack stronger (at least, those they think are stronger) party members first, leaving the weaker for later.

Animals attack the easiest "kill," while ogres would probably take out the less-armored types because it is relatively easier for them to do so, but even orcs usually try to drag down the fighters, knowing that doing so makes beating the rest of the group that much easier. Something as smart as an efreet will probably hit a magic-user first, since it would see that character as more of a threat, intending to deal with the physi-

cally stronger fighters later.

Intelligence determines what a monster does initially when confronted by a group of player characters. When surprised, any creature less than very intelligent will instinctively flee (at least until it has a better idea of what it is confronting). In such a case, a creature of high intelligence may be able to adjust more quickly after being surprised, and will react more rationally. Rule: Orcs flee, elves react. No creature, unless it is cornered or otherwise forced to fight, is likely to fight an unknown enemy, and will probably flee at first opportunity.

In a situation in which monster surprise is not a factor, creatures usually observe an enemy before they decide whether or not to attack. This axiom applies to all intelligent creatures, including those of animal intelligence. Lions stalk their prey, as do kobolds if given half a chance. As higher intelligences are considered, the time needed for observation decreases, until a creature of genius intelligence needs but a moment to evaluate a situation. But no creature attacks on sight — except maybe player characters.

Recognizing magic and men

A monster's ability to recognize magic use and magic items varies with intelligence. Creatures of low intelligence recognize magic only in its most overt forms — glowing weapons and other items that have strange effects.

Animals, and others of animal intelligence, won't recognize magic at all, reacting only to the effects (bright light, fire, etc.). Thus, they cannot use magic, since they simply do not understand what it is.

Creatures of average intelligence suspect magic more often than they actually encounter it — knowing that there is magic in the world, they "see" it everywhere — and so blame magic even for mundane events. Goblins, for example, blame natural events on magic, and so do many simple humans.

Somewhat brighter creatures recognize the signs of the magic-user (no armor, few weapons, odd items) and can act accordingly upon such signals. The most clever of creatures are able to perceive magic items simply by noting how party members hold or protect them. For example, while a manticore sees a man with a stick in one hand and a twig in another, an average dwarf may see a magic-user with a staff and a wand, while a ki-rin sees a low-level magic-user with a mundane walking stick and a wand of which he seems rather proud —

probably something fairly powerful.

A monster's ability to determine the character classes of party members is dependent on intelligence. A creature of *low* intelligence sees "man," one of *average* sees "cleric," while one of *genius* intelligence sees "high-level cleric with a magic staff." A monster's understanding and interpretation of what it sees affects how the creature reacts to the group, as well as affecting its decision on who it attacks first, should it do so.

Other effects of intelligence

In a creature's bargaining with groups, intelligence is the factor which influences all others. Knowledge tells a creature when it is possible to deal, how good a deal is, and with whom it should deal. The most stupid creatures may either not bargain at all, or "chaotically" make a deal which is ridiculously simple — or difficult — for the parties to meet. Such creatures may feel like a snack, and so ask for something to eat as plain as ordinary food or as absurd as three group members. The more intelligent a being is, the more likely it can determine just what the limits are on any deals it can make. Likewise, only the most dull-witted creature deals in good faith with an evil chaotic being, or expects such response from others if the creature itself is an evil chaotic being. (Gollum and the riddle-game is an example that leaps to mind.)

Another characteristic of monsters that corresponds to intelligence is how well a creature can use its natural abilities. Obviously, DMs should keep in mind that all creatures can use those abilities mentioned in the *Monster Manual* to full effect. Demons' spells and abilities are always ready at hand, and should be clear in the DM's mind; the same goes for the djinni and efreeti, and any other creatures with special abilities. This does not mean that creatures will always use their abilities to best effect, however. A DM should be ready to employ any special abilities, but always in a "natural" manner — dependent on the monster's intelligence.

For example, a fairly bright red dragon is likely to save its breath weapon for a more dangerous situation than when a lone half-fling wanders into its lair. Similarly, a dim-witted type IV demon may be less likely to gate in other demons, because of overconfidence or fear of appearing to be weak to others of its kind, than would a smarter one who decides that help may be welcome or more expedient in eliminating the party. The average troll is unlikely to use a weapon, but a genius of its race just might have the presence of mind to start swinging with a magical sword or wear that "cloak of protection from fire." It's all in the brain, so who can tell when the party might meet up with the Rhodes Scholar of otyughs?

Another effect of intellect on the average monster is evidenced in how it prepares its lair. A less intelligent minotaur that does not want to be disturbed may spread havoc in the area around its home in hopes of scaring off intruders (which has, of course, the opposite effect on player characters). The considerably smarter mind flayer, however, probably conceals its lair and takes care of trespassers quietly.

The latest in lair decor

What's "in" in interior design for the fashionable monster who hopes to terrorize its next village? Here are several rules of thumb:

Any creature of at least measurable intelligence will have an emergency exit in its cave, den, or lair. Even animals are smart enough to do this — why not a dragon? This escape hatch may be anything from a simple hidden tunnel to a magically concealed passage or a *teleport* spell.

Creatures of *average* or higher intelligence will place a trap or two along the approach(es) to their lairs. These may be outside the tunnels proper, or they may involve traps or mazes within the lair itself. Such traps will not be constructed so cleverly that the creature itself cannot pass them — if it is smart enough to create traps, it is smart enough not to trap itself. Particularly involved traps are usually constructed in blind side tunnels, so the creature won't have to worry about stumbling upon one of them.

Smarter creatures will probably have countermeasures in their lairs to compensate for any weakness they might have. Michelangelo Troll may reside in a particularly damp cave, or even one with a pool, to lessen the threat of fire-using invaders. Vinnie Vampire's crypt may have a permanent *darkness* spell permeating it, to counteract clerical light. A pet rust monster, pressed into service when plate-armored fighters invade, no doubt has been the salvation of many creatures bright enough to know their usefulness.

Any creature, no matter how stupid, will provide itself with some method of obtaining food: If it cannot get food to come to it, it will have to get to the food. By this reasoning, a dragon will seldom inhabit a dungeon, unless there is a usable escape tunnel out or it is reliably provided with food by a third party.

Finally, if the creature is a food-gatherer, any pets or guards it uses will usually not be of any type that might threaten its source of food. If a creature is smart enough to have guards or pets, it is bright enough to know the consequences of a poor choice.

Personality doesn't go by the book

The personality of a particular creature depends a lot on a monster's or NPC's mental faculties, and is somewhat shaped by the creature's alignment — but well-developed monsters have distinctiveness above and beyond these characteristics. The personality of a creature also includes the ways in which a DM breathes life into that *individual* monster or NPC — making it different from the standard "book variety" version of that monster.

For purposes of definition, a creature's personality is considered to be the way in which its intelligence and wisdom mesh to form its particular outlook on life and modes of living. Personality affects what goals a monster might have, as well as helping to describe quirks in its nature.

A monster's personality usually helps determine the circumstances under which it will meet the party, and will certainly also affect what it does when an encounter takes place. The presence or absence of caution on the monster's part, favored residences it might prefer to inhabit, and quirks of "character" are all monster characteristics that can affect how, when, and where the player characters encounter that creature or creature type.

Adjusting a monster's goals based on its personality may take some thought on the part of the DM, even after the nature of the creature's personality has been decided or determined. But the payoff for such work will be "one of a kind" encounters for the players — because no two monsters will ever be *exactly* the same.

To determine the nature of a monster's personality, the "Personae of Non-player Characters" section of the *Dungeon Masters Guide* is very helpful. Consider the traits and quirks therein, which can be chosen or generated randomly to assign to monsters and NPCs alike. If a monster has paranoia, it may attack on sight — even if the intruder is of the same race. If a creature is formidable and greedy, but faint-hearted, it may ask for a bribe in return for not attacking the party. A dragon hungry for wealth and power (beyond that which is normal for dragons) may try to take over an area and demand tribute in deference on the part of the other inhabitants. A lazy but vengeful NPC magic-user might not pursue a group himself, but would rather hire assassins or just put a price on the heads of his enemies.

Especially in a large-scale, wide-scope campaign, it's probably not worth it to make *every* monster different. Just put a little variety into the overall mix, so the flavor of your world is one where the monsters *live*, not just *reside*. Assigning distinctive personalities to even just some monsters tells players that they can no longer afford to treat *any* monster as typical, or similar to another. Players will learn — sometimes the hard way — that the beings in your world are individuals, and they'll enjoy the challenges this offers them.

Below are offered some suggestions for quirks. The use of these particular personality traits should be relatively limited, since most of them are *major* personality twists. They are described here as examples of what can be done in the extreme to change a monster according to its personality:

1. A creature who prefers eating to any other activity, and may also be greedy for wealth. (Such a creature would probably be grossly overweight.) Dealing with a demon with such preferences, for instance, would certainly be interesting, particularly if it decided that a member of the adventuring

group suited its "tastes."

2. Creatures prejudiced against certain other creatures, above and beyond the racial preferences lists given in the rules. This prejudice could take the form of anything from simple disdain to active hatred, and might produce an encounter result totally unexpected by the party members.

3. Creatures who have a phobia. Fear of silver in any form would be common among werewolves and other monster types susceptible to silver weapons. Trolls would probably have a phobia involving fire, considering their situation. But these are obvious and common. What happens when a group meets a griffon with hydrophobia (fear of water), or a cleric with a fear of flying, or a demon afraid of the dark (nyctophobia)?

4. A creature who hoards "odd" materials (books, artwork, etc.) in preference to monetary wealth or valuables that could be used for cash (gems, jewelry, etc.), or who actually prefers "money" of lesser value to higher denominations. All such hoarded items invariably have some significant monetary value — no book collectors or beer-can hoarders — but are of much greater intrinsic value to the creature than their monetary worth might indicate. A rather odd dragon, for example, may prefer items of copper above all other wealth, and be willing to trade gold or magic items for the group's "collection" of copper pieces.

5. Catatonic creatures may seem like statues, or under some spell, unless disturbed, at which point they attack in a berserk manner.

Goals, ambitions, and motivations

Just like player characters, monsters have certain goals and ambitions, as well as everyday needs. Most of these goals, wants, and needs would be recognizable as some form of human drive — but monsters are *not* human (seldom even humanoid), and cannot be treated by the DM as if they were. Creatures in the AD&D world are products of strange environments, backgrounds, and genetics, and must be played vastly different from humans.

In some aspects of life, monsters are similar to humans. However, their ideas of what is comfortable, pleasant, or beautiful are at odds with our own. Some monsters are born with specific tendencies toward good, evil, law, or chaos. Some enjoy (or even require) living in filth. Others think that murder, mayhem, and destruction are wonderful occupations, and they cannot be convinced otherwise. Others will find joy and beauty in what we consider ugliness. It is this difference in viewpoint which the DM must always be aware of in order to decide how a certain creature will react to any given situation.

Think of what *life* is like, for instance, for a vampire. What would it find interesting, especially since it is undead and therefore

(potentially) immortal? One can hardly sleep forever in one's crypt, no matter how homey it may be. Didn't it seem as though Dracula enjoyed those mental duels with his pursuers in old London? In a similar vein, an AD&D game vampire's boredom could easily be relieved by any passing group. The challenge to a vampire would be in misleading the group, and tempting his own destruction — or at least endangering himself — before artfully destroying them. On perhaps a lesser scale, the same thought holds for dragons, since the only opportunity for them to relieve the tedium of hoard-guarding would be in elegantly outwitting potential robbers. Typically, all creatures of relatively high intelligence are on the lookout for ways to make life interesting and occupy their time.

Less intelligent creatures do things in their spare non-combat time, too. Often their activity at such times is a search for some necessity: food, home, or a mate. If such a being finds time on its hands (claws?) once it has gathered the necessities of life, it would probably then set about prowling the neighborhood. (Curiosity seems to be a common trait among animals and creatures of low intelligence.) A group of adventurers could meet such a creature as a wandering monster at either time — when it is gathering food (or whatever), or when it's out for a snoopy stroll.

Most of the time, an undeveloped monster's motivations and goals are only made vaguely known, if at all. For instance, why do dragons hoard treasure? For pure greed, or for status among their fellows, or because they like lumpy beds? Why are sphinxes interested in riddles? Why do unicorns care about treasure? This sort of question is one that every DM must answer himself.

Deciding how to play the appeasement of monsters, reflecting the goals and desires of each creature type, is often a problem for both players and DMs. What is proper to offer a lamia, for example, as a bribe or a payment for some service — and what might it consider acceptable? General guidelines might read like this: Creatures of lower intelligence want food, and will often be satisfied by something that will fill their tummies. Those of somewhat higher intelligence may also want a mate, or companionship of some type, as preferred compensation. As a monster's intelligence increases, so does its interest in wealth and security. ("Will it pay me to take their money, let these guys go, and have them advertising my lair?") Rising still higher on the intelligence scale are those monsters with desires for power and magic.

One motivation common to all monsters (and characters as well), except for those of the lowest intelligence, is revenge — which can take a multitude of forms.

Environment and enemies

Individualizing monsters is the best way

to make each of them unusual and realistic — but a DM must be careful not to go too far in this direction, ignoring the general characteristics of a creature type that also help shape that creature's actions. Consider a creature's environment and acts its biological or psychological nature and ask: What is common to all creatures of this type? In this regard, the *Monster Manual* is particularly helpful because of its descriptions of behavior. To augment those guidelines, here are other ideas:

A creature living in a particular climate or environment will have certain natural enemies. A troll's enemies might be salamanders; a lammasu's foremost adversaries might be manticores. Whenever two creature types are competitors, they are probably enemies as well.

Living a life in one environment tends to cause fear of, or discomfort in, another. Thus, cave-dwellers may not actually fear light, but its brightness makes them uncomfortable. Many winged types may have claustrophobia and probably a fear of darkness, since flying is hazardous in cramped spaces or in the absence of light. A bulette may not like crossing rocky ground, since it is a burrowing creature and would be unable to flee in its accustomed manner if attacked on that terrain.

Weaker hunting-type monsters are correspondingly more cunning or travel in large numbers (kobolds and orcs are examples). Also, such types are more dangerous in their lairs, since they are more likely to prepare traps in order to survive in a world of stronger creatures.

Most monsters are not solitary creatures, and those that are able and willing form some sort of society. The natural alignment of a creature type comes into play here, since few monsters of chaotic alignment can cooperate to the extent of forming a solid, stable society. This is a rationale, in AD&D game terms, for how those of lawful good alignment can survive and persevere against the more numerous and more powerful chaotic and evil types — the "good guys" tend to band together, finding strength and safety in cooperation. A society of vampires, though interesting as a thought, would be very fragile — held together only by the most important of their common goals.

By keeping the mind of the monster in mind, a DM can make every adventure more fun and more fulfilling. The creation of monsters with challenging personalities gives the DM a proper measure of control over — and a greater responsibility for — what happens in his or her world. From this effort, the players receive a greater feeling of involvement and satisfaction when they defeat not "just another monster," but an *individual*. And if the player characters are defeated instead, then at least they have been beaten by a worthy opponent, not a "paper golem" with no mind of its own.

The oracle

When he talks, everybody listens

by Andrew Dewar

Ever since *Homo sapiens* learned how to use his brain, there has always been a part of man's mind that desires to know the events of the future — not only so that he can prepare for them, but also so that his curiosity might be satisfied. To fill this need, there have long been people claiming to be able to divine those events.

But there is also a desire to know events of the present as well, and events of the unknown past. There have also arisen those people who say they can divine these things. As long as man is curious about the things he does not know, there will be other men who will believe that they are able to satisfy this curiosity through mystical means.

These men and women are the oracles, a legendary type of person presented here as a new non-player character class for AD&D® game adventuring.

Ancient Greeks trusted the famous oracle at Delphi. The traditional procedure by which divinations were obtained involved virgins (ceremonially named "Pythia," after a serpent slain by Apollo) who were seated on a tripod over a rift, from which rose thick vapors and, so the Greeks believed, the wisdom of Apollo. The ancients had so much faith that they believed whatever the oracle at Delphi prophesied would invariably come true.

Eastern religions have long put great stock in oracular hermits living away from the people, who they believed had great and god-given wisdom. Such an oracle, they felt, could tell them the truth about their fates and the fates of their families.

In more modern times, gypsy fortune tellers have gained a reputation for mystical ability, although society is more skeptical of such persons than earlier civilizations have been. Still, there are mediums and fortune tellers making money from people who want to believe that oracular ability can truly exist, and who need their curiosity satisfied in one way or another.

In an AD&D® campaign (which, of course, strays a long way from "reality"), divination plays a large part in the lives of adventurers. A great many simple spells, including all the *detect* spells, are divinations. Also, there are a number of non-player character classes that can make predictions for paying clients: the sage, the alchemist, and the astrologer. It seems that adventurers, even more so than people in this real, mundane world of ours, need to know the future or the nature of things unclear to themselves. Often, having this

knowledge means the difference between life and death.

The sage, as outlined on pages 31-33 of the *Dungeon Masters Guide*, is inadequate for making divinations. Unless the sage's major field is the occult and things oracular in the first place, he will cost the party seeking his aid a great deal but will be of little help.

Similarly, the alchemist (as presented by Roger E. Moore in DRAGON issue #45) is lacking in oracular ability, preferring to spend his time as the sage does, buried in books and alchemical experimentation. Thus, he will not be able to help a party greatly when they come to him for aid.

Most useful is Roger Moore's astrologer class, also presented in DRAGON issue #45. The main function of the astrologer is to make divinations; however, the astrologer himself is limited in his abilities. That is, he has only one method of divination available to him, which is the occult, and things oracular in the ability of his predictions. Also, the astrologer cannot use many spells, and cannot perform even the simplest *detect* for adventurers.

The oracle NPC class

The following text describes the oracle as a new non-player character class, one which gives its members the ability to cast spells and use certain innate abilities in order to make divinations and predictions. An oracle NPC in an adventuring party would leave the other spellcasters free to carry more attack and defense spells, enhancing the

characters' chance of survival if the adventure ahead is to be full of conflicts and combat.

The principal attributes of the oracle are intelligence and wisdom, both of which must be 14 or higher. A high constitution and charisma are also useful, but these attributes may each be as low as 6. A high wisdom score allows the oracle to use extra spells, as follows:

Wisdom	Extra spells
15	1 first-level spell
16	1 first-level spell
17	1 second-level spell
18	1 third-level spell

These bonuses are cumulative, just as for clerics with high wisdom.

Similarly, a high intelligence score offers special benefits to the oracle above and beyond the usual extra language ability, as follows:

Intelligence	Bonus to chance of successful divination
16	+5%
17	+10%
18	+15%

Note that this extra chance of success applies only to certain of the innate abilities, but to none of the divination spells available to oracles.

Oracles are most often humans. Elves and half-elves may also be of this class, but

Oracle Experience Table

Experience points		Experience level	4-sided dice for accumulated hit points	Level title
0—	2,250	1	1	Fortune Teller
2,251—	4,500	2	2	Forecaster
4,501—	9,000	3	3	Augurist
9,001—	17,500	4	4	Anagogue
17,501—	33,500	5	5	Clairvoyant
33,501—	60,000	6	6	Sortiliger
60,001—	110,000	7	7	Sannyasi
110,001—	200,000	8	8	Medium
200,001—	360,000	9	9	Pundit
360,001—	630,000	10	10	Mahatma
630,001—1,000,000		11	11	Soothsayer
1,000,001—1,400,000		12	12	Seer
1,400,001—1,800,000		13	13	Low Prophet
1,800,001—2,200,000		14	14	High Prophet
2,200,001—2,700,000		15	15	Oracle
2,700,001 +		16	16	Great Oracle

13

may not rise higher than the 11th level of experience. Gnomes and dwarves are of a temperament not well suited to the disciplines of oracular ability, and half-orcs and halflings rarely possess the mental faculties to qualify. Thus, these last four races should be prohibited from taking up the class.

The experience-level structure among oracles is similar in some ways to that of druids and monks, in that the numbers of characters at certain levels is restricted. While there may be any number of oracles between the 1st and 11th levels, there are only one each of the higher-level oracles.

A character wishing to rise from 11th level to 12th (Soothsayer to Seer), after earning sufficient experience points, must seek out the single Seer and challenge him or her to a game of riddles. Dungeon Masters are referred to Patricia McKillip's *Hed* trilogy or J.R.R. Tolkien's *The Hobbit* to see how this might be done. The winner of this game becomes (or continues to be) the Seer, entitled to the possessions and abilities that go with the title. After a month of self-training, a character newly-claiming the title of Seer will be able to use new spells and certain innate abilities. As with the other combats of this type, the loser returns to the minimum number of experience points allowable for the 11th level (630,001 xp), and must begin to climb again. A riddle-game may not be attempted until a Soothsayer has sufficient experience points to rise a level. It should be noted that the Seer is in a precarious position, since there are so many who come to challenge him.

At 13th level and higher, there is no competition. A position in the higher levels becomes open only when its occupant dies. Then the character of the level immediately below the open position will move up into it, provided that he has enough experience points to fulfill that requirement. Every lower-ranking oracle then moves up accordingly (subject to the experience-point requirement). If necessary, a new Seer is chosen by a riddle-tournament held among any characters with enough experience points to claim the position. For example, if the Low Prophet were to die, the Seer (if he had enough experience) would move up to that position, and a new Seer would be chosen from among the Soothsayers.

* For each position above 11th level, there exists a vast and unique library, containing all of the information needed by an oracle of that level. Thus, a new Seer would find in his newly acquired library volumes containing the new spells he may use, along with equipment and instructions for his new innate abilities. The oracles possessing these libraries do not own them, but leave them behind for the next oracle when they rise in level.

Characters of 11th level and below, though, must seek training in the same way that characters of any other class must. They cannot impose upon oracles of 12th level or higher to give them this training, because oracles of that much stature are loath to waste time on such matters.

Oracles of lower than 12th level may carry or own whatever items they wish (subject, of course, to a few class restrictions), and may travel about freely and hold any faith. Only the wisest and most intelligent oracles ever make it to the higher levels, and although such advancement is the general goal of every oracle, most do not pursue it exclusively.

Higher-level oracles will never be kept in the service of a single person or a particular group of characters, but will live in some secluded part of the world where they will not often be disturbed. There, they study and expand their experience as much as they can. The lairs of these oracles are more or less permanent structures or enclosures, and they come with the position. When an oracle of high level rises, he often changes lairs as well. Thus, people tend to identify more with the positions and locations or oracles than with their individual names or identities.

In many ways, oracles are similar to magic-users. They fight and save on the magic-user tables, are subject to the same weapons and armor restrictions as magic-users, and they are able to use any device or magic item than a magic-user can employ. The only major difference between the classes (apart from certain innate special abilities) is in the way that spells are recovered; this is described below.

It is possible for an oracle to be of any alignment, although those of the highest levels tend to be true neutral. In any case, that is a reflection on their temperament rather than their religious preference. An oracle, as he progresses in power and ability, will likely turn away from any extreme alignment and become more and more neutral in his outlook.

Similarly, an oracle may technically worship any god he wishes, but will tend to abandon his faith as he rises in level. Divinations need not, as the name would seem to suggest, come from a god, but rather from the earth and the spheres. Gods must live by the laws of the universe in an AD&D game, just as men and beasts do, and thus oracles must go "beyond the gods" to achieve their predictions. They read things from the structure of the universe, which exists in spite of the gods rather than because of them, and there they find their answers. Thus, an oracle with an extremely fervent faith will not be liable to advance to the highest levels of his class, because his interpretation of the omens of the universe will be slanted by his adherence to that faith.

At the 5th level of experience, an oracle begins to attract followers. At this point, he will gather one or two students of zero or 1st level. Upon attainment of each level higher than 5th, the maximum number of students is doubled; at 11th level, a Soothsayer may have as many as 128 students and followers of zero or 1st level, or correspondingly fewer of higher levels (up to 4th). When a Soothsayer rises to Seer, however, he must abandon his followers, and they likewise must abandon him. High-level oracles, as mentioned earlier, lead solitary lives and seek seclusion rather than the adoration of followers or students.

Innate powers

At each level of experience, oracles gain certain innate powers of divination. The accuracy and usefulness of these increase

Innate ability	Percentage chance for success at experience level															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Rhabdomancy*	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
Arithomancy	08	11	14	17	20	23	26	29	32	35	38	41	44	47	50	53
Cleromancy	—	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Coscinomancy*	—	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68
Austromancy	—	—	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Capnomancy	—	—	15	20	25	30	35	40	45	50	55	60	65	70	75	80
(combined)	—	—	45	60	75	90	00	00	00	00	00	00	00	00	00	00
Belomancy*	—	—	—	15	20	25	30	35	40	45	50	55	60	65	70	75
Hepatoscopy	—	—	—	15	20	25	30	35	40	45	50	55	60	65	70	75
Meteoromancy	—	—	—	—	20	25	30	35	40	45	50	55	60	65	70	75
Ornithomancy	—	—	—	—	—	22	29	36	43	50	57	64	71	78	85	92
Hydromancy	—	—	—	—	—	22	29	36	43	50	57	64	71	78	85	92
Hieromancy	—	—	—	—	—	—	26	32	38	44	50	56	62	68	74	80
Ophiomancy	—	—	—	—	—	—	26	32	38	44	50	56	62	68	74	80
Pyromancy	—	—	—	—	—	—	—	30	38	46	52	60	68	76	84	92
Botanomancy	—	—	—	—	—	—	—	29	33	37	41	45	49	53	57	61
(with spell)	—	—	—	—	—	—	—	79	83	87	91	95	99	00	00	00
Astromancy	—	—	—	—	—	—	—	—	30	39	48	57	66	75	84	93
Horoscopy	—	—	—	—	—	—	—	—	30	39	48	57	66	75	84	93
Oneirocritica	—	—	—	—	—	—	—	—	30	35	40	45	50	55	60	65
Lithomancy	—	—	—	—	—	—	—	—	—	30	40	50	60	70	80	90
Dactylomancy*	—	—	—	—	—	—	—	—	—	30	35	40	45	50	55	60
Haruspicy	—	—	—	—	—	—	—	—	—	—	35	50	65	80	95	99
Sciomancy	—	—	—	—	—	—	—	—	—	—	—	35	50	65	80	95
Catoptromancy	—	—	—	—	—	—	—	—	—	—	—	—	25	40	55	70
Licanomancy	—	—	—	—	—	—	—	—	—	—	—	—	—	40	60	80
Gastromancy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	95
Crystallomancy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99

with the oracle's level.

The accompanying chart gives the innate oracular abilities, the level at which each is first gained, and the chance of successful divination using that ability at that level and all higher levels of experience. Abilities where the chance for success may *not* be improved by an intelligence bonus are marked with an asterisk.

Rhabdomancy: This is the art of dowsing for water or oil, or for metals of various types. Any forked wooden stick may be used, although hazelwood works best (+1% to chance of success per level of oracle).

The stick is held by the prongs with the palms of the hands facing upward and horizontal to the ground, while the ends of the prongs project outward. The pointing end of the stick should be slightly elevated above horizontal. When water, or oil or metal, are directly beneath the rod, the end will force itself downward to indicate the presence of the substance.

Oil or water will be located by a simple, bare wooden rod, but metals can be found by dowsing only if a bit of the metal sought is attached to the pointing end of the stick. Any metal of a non-magical nature can be dowsed for; however, metal which is used for currency or is valuable because of its rarity is located at a penalty of 10% to the chance for success. Iron, other common metals and common alloys (bronze, brass, etc.) can be found at no penalty.

Arithomancy: This, in essence, is numerology. An oracle may assign numbers to the letters in the name of a person, place or thing and make a divination about the nature of the thing so named and "numbered." This prediction will reveal, to some extent, whether the person, place or thing is good or evil, and whether it involves good fortune or bad. This ability incorporates the skills of onomancy, which considers the letters in a name themselves rather than the numbers they may represent.

Cleromancy: This is divination by lots. An oracle practicing this ability would cast down a number of small dice or tiny, marked bones, and make a prediction from the numbers that turn up. A successful divination will tell the oracle whether the characters asking for the divination (or himself, of course) will have good or bad fortune in the next week.

Coscinomancy: This is a method that an oracle may use to determine the guilt or responsibility of a known character in causing a known event. The oracle will balance a small brass sieve on two fingers, or on the points of a pair of shears (+5% to chance of success for any level of oracle), and then describe the event (a crime, usually). After that, the names of characters suspected of causing the event or committing the crime are spoken before the balancing sieve. If the divination is successful, and the name of the guilty character is spoken, the sieve will

begin to wobble at that time, indicating guilt.

Austromancy: This means of divination allows the oracle to know whether the fortune of a character will be good or bad during the next week by studying the winds and the movements of clouds for a day.

Capnomancy: This method of divination achieves the same effect as austromancy, but the determination is through a day's study of the movements of smoke (in still air). During this time, a smoky fire must be maintained for the oracle.

If austromancy and capnomancy are combined at the same time and in the same effort, the effects and length of time required remain the same, but the chance of successful divination triples.

Belomancy: This, like cleromancy, is a form of divination by lots; however, it uses arrows or notched sticks instead of dice. Answers to a question posed by a character are written on the arrows, and these, along with a single blank arrow, are placed in a bag. If the divination is successful, and the correct answer is among those written on the arrows, the oracle will draw out of the bag the arrow with the correct answer. If the divination is not successful, though, the blank arrow will be drawn. Any arrow drawn from the bag after the first one will be blank, regardless of the number of blank arrows first placed in the bag. No question may be asked more than once; arrows for repeated questions will always be blank.

Hepatoscopy: This method of divination uses the examination of the livers of lower animals to determine the fortune of characters. The chance of success is adjusted according to the size and physiological complexity of the animals used — but in no case may any creature of higher than animal intelligence be used. Birds and fish may be used at −25% to the chance of success, small animals and monsters at −15%, man-sized animals and monsters (as well as sheep and goats) with no adjustment, and large animals and monsters at +15%. Animals or monsters who are examined must be killed by the oracle just before attempting the divination; creatures already dead may be used, but at −70% to the chance of success.

Meteoromancy: The study of meteors by an oracle may foretell the favor of a god, the fortune of a character, or the occurrence of an important event. This method of divination allows the oracle to know not only which of these omens the sighted meteors represent, but (with a small degree of accuracy) what the event, fortune, or disposition is. In any case, the oracle must spend a week studying the skies before he may make the divination.

Ornithomancy: This method of divination allows the oracle to determine whether

a character's fortune in the coming week will be good or bad. The oracle must spend a day studying the movements of birds before attempting a divination.

Hydromancy: Except that the oracle must spend a day studying the movements and currents in running water or the tides, this method of divination is the same as ornithomancy.

Hieromancy: This is a divination of fortune, or the favor of a god, through the study of holy objects. If the oracle making the divination is of the faith to which the object studied is holy, there is an additional 10% to the chance of success.

Ophiomancy: This is divination through the study of serpents — that is, snakes — of any type (lizards, dragons, and other reptiles are excluded). After a day of study, the oracle may make a prediction about the fortune of a character for the coming week.

Pyromancy: This is divination through fire. An oracle will be able to make a prediction about the fortune of a character for the next week after studying the flames of a fire for an hour. The chance of success is adjusted according to the size and nature of the fire. A small flame, such as a candle, allows the oracle to divine at −10%, while a normal fire is unadjusted, and a large fire (such as a pyre or a burning building) gives +25%. If dung is cast into the flames, there is a −5% to the chance of success, but if incense is burned, there is a +10% chance.

Botanomancy: This is a form of divination through the study of plants. After a day of studying live plants, the oracle may make a prediction about the fortune of a character during the next week. If botanomancy is combined with a *speak with plants* spell, the chance of successful divination is increased by 50%.

Another method of botanomancy, similar to belomancy, involves the writing of answers to a question on the leaves of a plant. The oracle then cuts these leaves free and exposes them to the wind. If the divination is successful, and the correct answer is among those submitted, the wind will blow away all leaf-answers but the correct one. If the divination is unsuccessful, no answers will be left behind by the wind, and those blown away will be irretrievable. Note that in this second method of botanomancy, the *speak with plants* spell will not change the chance of success.

Astromancy and *Horoscopy:* These two methods of divination are essentially the same, the former being a study of the stars and the latter a study of star charts. They allow an oracle to determine the fortune of a character for the next week, and with fair accuracy the type of events that will befall him. In both cases, a full night of study by the oracle is required in order for the divination to have a chance of being successful.

Oneirocritica: This is a divination made through the interpretation of dreams and visions. After a night of successful dreaming, an oracle may predict an event that will happen in the next two days, with fair accuracy. The chance for success roll indicates both that a dream or vision was had by the oracle, and that it was interpreted correctly. If a character relates a dream or vision to an oracle with oneirocritical ability, there is a basic chance of 10% plus 5% per experience level of the oracle that it will be interpreted correctly. Events of the past and present may also be divined this way; the chance of an event dreamed being in the future is 85%, the chance of it being in the past is 10%, and in the present, 5%.

Lithomancy: This is a method of determining the fortune of a character, or the nature (good or evil) of fortune of a different person or place. The oracle will cast down a number of pebbles and then study the patterns formed by them. Similar to lithomancy is geomancy, in which dots are drawn randomly on a scrap of paper and the patterns then read by the oracle. Geomancy also allows the oracle to divine things by reading the patterns in cracks in the ground.

Dactylomancy: This method of divination involves the use of a device similar to a Ouija board. The character requiring knowledge asks the oracle a question, and the answer is spelled out by a finger-ring suspended over a grid of alphabetic letters. The answer will likely be cryptic, but occasionally, as in the case of a name or a simple affirmation, the answer will be concise and clear. A lack of success in the divination is indicated by a lack of movement by the ring. A question may be asked only once; if the divination fails for that question, no answer may ever be determined, even if the question is reworded.

Haruspicy: This method of divination is almost the same as hepatoscopy, except that it is more precise, telling in fair detail what the major events of the next two days will be (death, for example, or a complete loss of money), if any major events will occur, and may only be performed with the entrails of non-intelligent animals and monsters of 6 or more hit dice. The entrails of the victim are cut out and cast randomly on the ground, and the twistings and patterns formed by them are studied by the oracle. Animals not killed by the oracle himself may be used, but at a penalty of −50% to the chance of success.

Sciomancy: Similar to the *speak with dead* spell, this method of divination allows the oracle to determine the truth about an event in the past or present, by speaking with the spirit (the body need not be present) of a deceased character. Only one event may be discussed, although as many questions may be asked of the spirit as are necessary to clarify the answer.

Catoptromancy: This is divination by means of reflections and mirrors. Events of the past (60% of the time), present (15%) or future (25%) may be divined precisely by the oracle after an hour of mirror-gazing. Random events are reflected in the mirror for the oracle to see. Silver mirrors allow a +10% bonus to the chance of success when depicting events involving death.

Licanomancy: This is the ability of divination through the study of reflections in a vessel of still water. A drop of oil may be added and the resulting patterns studied; this is called scyphomancy. Or, the motions and figures in a pot of molten lead may be studied also; this is called molybdomancy. The oracle, after an hour of study, is able to make an accurate divination of an event occurring in the past, present, or future, which he is able to specify 20% of the time. The use of either holy or unholy water will give +10% to the chance of success. Events seen in holy water tend to be pleasant, and those seen in unholy water tend to be dire.

Gastromancy: This ability is divination through the observation of figures in sealed glass jars. Two sets of these jars exist; one is in the possession of the single oracle, and one in the possession of the Great Oracle. The five jars of each set are cobalt blue in color and vary in height from two inches to two feet. A specific event of the past, present, or future may be requested by the oracle, and 50% of the time, this will be the one depicted. Otherwise, the event shown will be random. If the divination is unsuccessful, the jars will remain empty, but if a successful divination is made, a series of cryptic figures and depictions will appear in the jars. The jars themselves are not magical.

Crystallomancy: By this method, the Great Oracle is able to divine with, with only a 5% chance of failure, any event occurring in the past, present, or future. This event may be chosen by the oracle 80% of the time; otherwise it will be random. The oracle consults a crystal globe (which is non-magical), and sees in it a series of figures, or depictions of people and events, which he may then interpret to make a divination.

General guidelines on divination

Innate abilities are available to an oracle whenever the proper equipment or materials are present.

The die roll made for each divination indicates only whether or not the oracle was able to get a clear impression, and does not guarantee the absolute accuracy of that impression. If a divination is found to be unsuccessful, then the oracle is unable to receive any impression about the question posed him; however, he will require payment in return for even a failed attempt.

The accuracy of a prediction depends more upon the experience level of the oracle involved than on the method used to make

it. Thus, predictions made by higher-level oracles will tend to be more precise than those made by low-level oracles, even in the case of a simple reading of a fortune. Higher-level oracles will be relatively more specific in their divinations when the attempts succeed.

It should be noted, though, that divinations made by any oracle tend to be a little difficult to understand, or at least should be able to be interpreted in several ways, so that player characters are not able to take advantage of the oracle to know with great precision and accuracy what will happen in a campaign. An element of mystery should be maintained, and so oracles ought to respond in verse or in generalities rather than in straightforward terms. Players should have to interpret the words of the oracle in order to benefit from them.

On the other hand, predictions of the future that are correct (such as the death of a character, if such is indicated) should always come true. Even if a character takes precautions against a prediction, it should still occur. Once an oracle makes a prediction that the DM and the dice say is true, it happens. Similarly, events of the present and past must have taken place, if they were described correctly by an oracle.

In cases where the oracle receives visions and impressions of things that he did not request (especially among the higher-level abilities), the origin of those impressions will be unknown to the oracle. That is, he may request to know about the death of a certain character in the future, but if he receives impressions of an earthquake instead, he will not know whether the earthquake occurred in the past, is now occurring, or will occur in the future, or where it will take place. Such events should be created randomly by the DM, and may in fact be events that have already occurred to the character requesting knowledge from the oracle. In any case, they should not be events of any great importance to the campaign, lest they disturb the balance of the game.

Furthermore, if the revealing of certain information would tend to badly unbalance the game and lessen the enjoyment of the players, the DM should not let the information out, despite what the dice may tell him.

The price that an oracle will ask for a divination is high, and costs increase as the level of ability increases. Usually, the price asked will be 100 gp times the level of the ability squared, plus or minus a little according to the wishes of the DM. Thus, a simple dowsing for water would cost 100 gold pieces $(100 \times [1]^2 = 100)$, while a gastromantic prediction might cost around 22,500 gold pieces $(100 \times [15]^2 = 22,500)$.

Spell-casting by oracles

Oracles have the ability to cast both divination magics and some necromantic spells. These they acquire through meditation, in the same way that clerics and druids recover their spells, although all of their spells do exist in a written form.

The prices that an oracle will charge for spell-casting will be the same as those charged by any other class of spell-caster for the same activity. For example, the *DMG* outlines on pages 103-104 some suggested prices for clerical spells; oracular spell prices would be in this range.

Spells unique to the oracle class are described after the spell list which follows, and spells taken from the *Players Handbook* are referenced according to the level and class which apply.

Spells usable by class and level: Oracles

Oracle level	Spell level					
	1	2	3	4	5	6
1	1					
2	2					
3	2	1				
4	3	2				
5	3	3	1			
6	4	3	2			
7	4	4	2	1		
8	5	4	3	2		
9	5	5	3	2	1	
10	6	5	4	3	2	
11	6	6	4	3	2	
12	7	6	5	4	3	1
13	7	7	5	4	3	2
14	7	7	6	5	4	3
15	7	7	7	6	5	4
16	7	7	7	6	5	5

Spell descriptions
(Existing spells are denoted by level of spell and class of caster.)

First level

Detect evil: 1st-level cleric.
Detect illusion: 1st-level illusionist.
Detect invisibility: 1st-level illusionist.
Detect lie: 4th-level cleric.
Detect magic: 1st-level magic-user.
Detect snares and pits: 1st-level druid.
Identify: 1st-level magic-user.
Know alignment: 2nd-level cleric.
Locate animals: 1st-level druid.
Predict weather: 1st-level druid.
Read languages: This spell is essentially the same as the thief ability. The caster is able to read any language for the duration of the spell (5 rounds/level), excepting magical languages. He is not able to write the language, though, or speak it.
Read magic: 1st-level magic-user.

Second level

Augury: 2nd-level cleric.
Cure light wounds: 1st-level cleric.
Detect charm: 2nd-level cleric.
Detect poison: This spell will detect the presence of a poison or venom on or in any item, if such substance is present. The caster must touch the item on which the spell is being cast in order to detect the venom. Note that the spell provides no immunity to the poison, and a save vs. poison must be made as usual if contact poison is touched.
ESP: 2nd-level magic-user.
Find traps: 2nd-level cleric.

Oracular spells

1st level	2nd level	3rd level
1 Detect evil	Augury	Animate dead
2 Detect illusion	Cure light wounds	Clairaudience
3 Detect invisibility	Detect charm	Clairvoyance
4 Detect lie	Detect poison	Divine truth
5 Detect magic	ESP	Feign death
6 Detect snares and pits	Find traps	Metal and mineral detection
7 Identify	Guidance	Speak with animals
8 Know alignment	Know languages	Speak with dead
9 Locate animals	Locate object	Sympathetic magic I
10 Predict weather	Locate plants	Tongues
11 Read languages	Omen I	
12 Read magic	Slow poison	

4th level	5th level	6th level
1 Commune with nature	Commune	Contact other plane
2 Divination	Cure critical wounds	Divine future
3 Divine past	Divine present	Heal
4 Omen II	Legend lore	Memory
5 Speak with plants	Hide	Omen III
6 Stone tell	Speak with monsters	Raise dead
7 Vision	Sympathetic magic II	Reincarnate
8 Wizard eye	True seeing	Seek

Guidance: This spell answers simple questions concerning the fortune of a character or party. One general question may be asked, and the caster will intuitively know the answer. The questions asked should not be specific, but of the "Will we be alive tomorrow?" or "Will we be rich if we survive this adventure?" type. The spell may be cast once per day.

Know languages: This spell expands on the *read languages* spell, allowing the caster to understand spoken languages as well. It still does not allow him to communicate in that language, though, or to understand magical languages. The spell lasts for 3 rounds/level.

Locate object: 2nd-level magic-user.
Locate plants: 2nd-level druid.
Omen I: This spell simply allows the caster a greater chance of success when making a divination through one of his innate abilities. This bonus is 10%. Theoretically, speaking this spell increases the caster's ability to see and interpret correctly the various omens in his divination.
Slow poison: 2nd-level cleric.

Third level

Animate dead: 3rd-level cleric.
Clairaudience: 3rd-level magic-user.
Clairvoyance: 3rd-level magic-user.
Divine truth: This spell allows the caster an 80% chance to determine the truth about something, by placing in his mind a series of figures and images that he may interpret. The spell works only for one question, and then dispels. Any question may be asked, but it is recommended that as the questions grow in complexity the answers become more allegorical and cryptic.
Feign death: 3rd-level cleric.
Metal and mineral detection: This spell acts as the *wand* of the same name, allowing the caster a better chance of locating metals

and minerals than his rhabdomantic skill does. Thus, any metal or mineral may be detected without fail within the duration of the spell (1 round per level).
Speak with animals: 2nd-level cleric.
Speak with dead: 3rd-level cleric.
Sympathetic magic I: This spell allows the caster to make a divination about a specific person or thing, provided that some portion of that person or thing is available to the caster. This item, which should be something like a lock of hair or a set of fingernail parings, is a material component of the spell, and disappears when the spell is cast. The spell allows the caster to know the location and condition (dead or alive, good or evil, etc.) of that person or thing, although these are only roughly perceived. The spell has a duration of 1 round per level.
Tongues: 4th-level cleric.

Fourth level

Commune with nature: 5th-level druid.
Divination: 4th-level cleric.
Divine past: This spell lets the caster divine with reasonable accuracy an event that happened in the past. This event may be specified by the caster, but the chance of seeing a random event instead is 100% minus 5% per level. The spell will fill in the details of a single event, and identify the characters in it, as well as the sequence of events. If the event is chosen by the caster, the relative age of it should be considered; casters of 7th and 8th level may see only events happening within the past week; casters of 9th to 11th level can see events a month old; and casters of higher level can see any event less than a year old. After the oracle sees sufficient impressions (in the form of figures and depictions) to let him interpret the event, the spell dissipates.
Omen II: This spell is similar to *Omen I*, except the extra chance of success is 20%.

Speak with plants: 4th-level cleric.

Stone tell: 6th-level cleric.

Vision: 7th-level illusionist.

Wizard eye: 4th-level magic-user.

Fifth level

Commune: 5th level cleric.

Cure critical wounds: 5th-level cleric.

Divine present: This spell is essentially the same as the *Divine past* spell, except that the events divined are occurring as the spell is cast, or occurred in the past in 1-4 turns. One event may be divined, in the same manner as with the Divine Past spell, and the chance of seeing the desired event is the same.

Legend lore: 6th-level magic-user.

Hide: This spell is essentially the same in effect as the *amulet of proof against detection and location*. For the duration of the spell, which is 2 turns/level, the caster may not be detected or located by any magical means, including the *seek* and *sympathetic magic* spells. As well, he will not appear in divinations about the time during which the spell is in effect, whether made in his past, present, or future.

Speak with monsters: 6th-level cleric.

Sympathetic magic II: Similar to *Sympathetic magic I*, this spell allows the caster to make divinations about a person or thing with only an item closely associated to that person or place, such as a pet or a bulb grown there, as a material component. This component disappears when the spell is cast. This spell allows more precise divinations about locations and states, as well, and the duration is increased to 3 rounds per level. Also, the spell allows the caster to exercise a certain amount of control over the object of the spell, in a manner similar to a *charm* spell, although this control will be lost if the caster tries to force the subject to endanger itself. Note that this spell can only be used in the present, and cannot change the past or shape the future.

True seeing: 5th-level cleric.

Sixth level

Contact other plane: 5th-level magic-user.

Divine future: This spell is similar to the other *Divine* spells, except that it allows the caster to divine an event that will happen in the near future (1 turn to 1 day). The mind of the caster is filled with figures and depictions, from which he may interpret the event. He may choose the event, but the chance of seeing it is the same as for the other *Divine* spells. Once a divination has been made, the spell dissipates.

Heal: 6th-level cleric.

Memory: This spell allows the caster to absorb the memory of a person or thing (cf. *legend lore*) by speaking the spell and then touching the thing. If the thing touched is living, the touch causes its memory to be wiped blank; instincts, however, are not absorbed. There is a 20% chance that the spell will work in reverse, transferring to the person or thing the memory of the character, thus wiping out the memory of the character. In this case, the caster must make a system shock roll or become insane; the person receiving the memory must also do so. Once the memory has been absorbed, the character must decide what sorts of things he wishes to remember, since 80% of the memory will vanish after 6 turns.

Omen III: This spell is similar to the other two *Omen* spells, except that the extra chance of success that it gives is 30%.

Raise dead: 5th-level cleric.

Reincarnate: 7th-level druid.

Seek: This spell is borrowed from the witch non-player character class, as presented in DRAGON issue #43. By casting this spell, an oracle immediately gains the ability to determine the location of any single item, place, or creature, and can visualize all major aspects of its immediate surroundings within 50′. The oracle can tell in what general part of the world or area the thing being sought exists; the closer the oracle actually is to the thing being sought, the more definite the general idea will be. The spell duration is 5 rounds/level.

(From issue #50, June 1981)

"DON'T LET IT BOTHER YOU.
LOTS OF FIGHTERS HAVE SWORDS THAT ARE
SMARTER THAN THEY ARE."
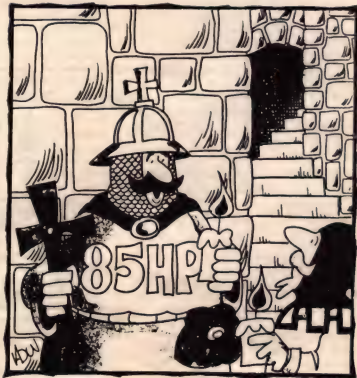
"NOT REALLY, BUT IT PUTS OFF THE
LITERATE MONSTERS."

Firearms

The first guns weren't much fun

by Ed Greenwood

Gunpowder — and the advent of ballistic weapons — proved the beginning of the end for the medieval warfare depicted in the AD&D® game world. Armor, bladed weapons, stone castles — all were made obsolete by gunpowder and firearms. Nothing withstood "the great equalizer" that let men kill from a safe distance without concern for personal strength or valor.

So, the *Dungeon Masters Guide* warns for good reason against the desire to "have gunpowder muddying the waters in your fantasy world" (page 113). Yet, introducing gunpowder to a campaign raises some fascinating possibilities. The trick, of course, is limiting the use of firearms to maintain game balance.

For example, DMs should not allow alchemists and artisans to greatly improve the technology of firearms in their world. Gunnery should remain an art, not a science. For a long time, artillery was rare, expensive, and clumsy in battlefield use — more a psychological than a physical weapon. The use of gunpowder in a fantasy world should reflect this. With proper design, almost any early firearm could be introduced into the AD&D game setting, if the DM can devise a logical justification for its presence. With this in mind, what follows is historical information on various firearms, with ideas for translating them into play.

In the beginning

The first real gun was a large, bottle-shaped iron pot that fired an enormous crossbow bolt when the powder in its bottom was ignited. Such weapons were known as *pots de fer*, and were made as early as 1327 in England.

In 1328, the French fleet that raided Southampton in the opening year of the Hundred Years' War was outfitted with one *pot de fer*, 3 lbs. of gunpowder, and two boxes of 48 large bolts with iron "feathers." Although arrows and bolts were soon replaced with bullets of lead, iron, or stone, they were still being fired from muskets as late as the time of the Spanish Armada. Ribalds made in England in 1346 are known to have fired "quarrels." The guns the French used to defend Cambrai the following year were bought from artisans by weight, and averaged only 25 lbs. per gun.

The most popular gun of this period was the ribald, a series of small gun barrels clamped together (looking something like the later-appearing Gatling gun or the nebelwerfer). Their touch holes were arranged so a single sweep of the gunner's match would set them all off. Ribalds were usually mounted on wheeled carts, with a shield to protect the gunner from arrows. These "carts of war" were particularly useful when aimed at breaches and doorways. However, the balls fired by a ribald were far too small to breach walls, and the weapon took a long time to load or reload — each tube had to be cleaned out, filled with a charge of powder and ball, wadded, tamped down, and primed.

By the 1340s, 3-inch-caliber guns were used for sieges, and in at least one instance, by the English at Crecy in 1346, on the battlefield. These guns fired balls of iron and stone, and the three cannons at Crecy sold the English on the use of artillery.

Most of these early pieces were cast in brass or copper, rather than iron. In 1353, Edward III ordered four new guns cast of copper from William of Aldgate, a London brazier. The guns cost the equivalent of about $150 each in today's money. These were probably small guns, because large castings tended to have flaws and airholes. This led to the guns' distressing habit of blowing up when touched off, killing the wrong people. James II of Scotland was killed in 1460, while besieging Roxburgh Castle, when one of his big guns, a bombard made in France and called "The Lion," blew up; a piece of shrapnel struck him in the chest.

Despite the risks, large barrels were effective in battering down castle walls. These barrels were wrought rather than cast. White-hot iron bars were laid side-by-side around a wooden core and welded together by the blows of the gunsmith's hammer. Iron rings or hoops were clamped around the barrel to strengthen it.

As the arts of metallurgy and casting improved, bronze cast guns replaced hooped guns. By the end of the 15th century, hooped guns were rarely seen. Missiles during this time were almost entirely of stone; firing metal balls was simply too expensive. Cannonball casters were skilled workers, paid as much per day as a man-at-arms.

At the siege of Harcourt in 1449, a gun produced by the Bureau brothers did heavy damage — "the first shot thrown pierced completely through the rampart of the outer ward, which is a fine work and equal in strength to the Keep." In the next year, the Bureau brothers' guns took sixty fortified areas. Many surrendered as soon as the big guns were in position, for the defenders knew they would simply be battered to pieces. It was no longer necessary to starve someone out of his castle — you could now blow it down about his ears.

On the battlefield, however, supremacy was much longer coming. Early guns were emplaced on earthen mounds and dug in, or set upon wooden platforms. These were not mobile, so if an enemy avoided the ground the guns were aimed at, the guns were useless. Mobile carriages were introduced in the early fifteenth century (such mounted cannon were known as "snakes"), but the introduction of lightweight, horse-drawn gun carriages and trunnions (the projections on a gun barrel that act as pivots for elevation) came later. Cannons had smooth bores for centuries before successful rifling was developed; the maximum effective (wall-piercing) range of a 14th-century smooth-bore cannon was 200 yards with a 30-lb. missile.

DMs should not allow reliable handguns or shoulder arms in their AD&D worlds, although one-man firearms were in use as early as 1386. The individual barrels that made up ribalds were mounted separately on spear-shafts and given to men-at-arms. A soldier put the spear shaft under his arm, resting its butt on the ground behind him, and fired the handgun by lighting a "match" (a length of cord impregnated with saltpeter and sulphur so it burned slowly and evenly). These guns, which fired high into the air and were difficult to aim, were soon replaced by short-shafted weapons that rested against the chest or shoulder. These were very inaccurate, but when firing in massed volleys could be quite effective.

Such firearms were unpopular with knights, for the lowliest peasant could pierce armor with one. Professional soldiers weren't too happy, either; Shakespeare captured their feelings when he called gunpowder "villainous saltpeter." A Venetian mercenary army in 1439 massacred Bolognese handgun men for using "this cruel and cowardly innovation, gunpowder."

Soon, gunstocks had hooks that caught on a parapet or barricade, to absorb some of the recoil. The development of the matchlock gun allowed guns to rule armor, and the medieval setting typical of AD&D adventuring largely disappeared. The matchlock gun became the musket, wheel-lock guns were introduced, and modern weaponry was in sight.

Gunsmiths and their equipment

Player characters should not be allowed to obtain skill in gunsmithing, nor in battlefield gunnery (save at great risk, in emergency situations). Historically, gunners were artisans, private individuals who produced firearms for a fee and often hired themselves out to work the guns they made.

The price of a gun always provided the buyer with the weapon, any stands or carriages necessary for its use, ammunition, gunpowder (or its ingredients), and all the necessary gunners' equipment: drivells (iron ramrods), tampions or tompions (wads), matches, touches (for lighting matches or powder through a touchhole; a "touch" is basically a torch mounted on a pole), and firing pans (metal pans filled with hot coals to light the touches; no flint and tinder were used, to avoid sparks). Gunmakers provided bags of hide to carry the gunpowder, and scales and a mortar and pestle for mixing it. They manufactured barrels of all sizes with locks, to store gunpowder in a castle or permanent gun emplacement, and trays of wood or brass in which damp powder could be dried over a fire or in the sun. If their guns fired cast bullets — of iron, brass, copper, or lead — the gunner provided the molds for each firearm.

A gunsmith, one can see, was both highly skilled and versatile, and often employed underlings to round stone balls, work and cast the metal, and manhandle guns in battle. DMs may wish to increase the smith's fee over that given for an engineer-artillerist in the *DMG* (pages 29-30), on the grounds that men familiar with these new and relatively mysterious weapons are both in great demand and rare. Two hundred gold pieces a month seems about right (plus 10% of the cost of weapons made, as mentioned in the *DMG*), but remember that demand, supply, politics, alignment, and character personality will affect a gunsmith's charge; a party should find a gunsmith's services quite dear — if not outrageous.

A gunsmith is capable of performing all the tasks of an armorer or blacksmith, given time, but will not be pleased if kept long away from his guns. Most gunsmiths have pet theories and grand schemes about placement and use of guns in warfare. These plans may be impractical or ingenious; once hired, a gunsmith will attempt to get his plans implemented if his employer seems rich enough to make them reality.

Gunpowder

The explosive substance that propels firearm projectiles is an unstable mixture of potassium nitrate (saltpeter), sulphur, and charcoal. It does not travel well and therefore was mixed on the battlefield. Gunners were specialists at mixing charges and judging the correct amount of each ingredient to use, although this, too, was at times more an art than a science. Powder with coarse saltpeter burned slowly; when finer saltpeter was used, the powder exploded promptly

and with great force. Many guns blew up because of this, and firing a charge through a touchhole became suicide. Instead, gunners laid a train of fast-burning powder along the outside of the gun barrel, lit it, and ran for safety.

Saltpeter is expensive and rare (about 22 gp/lb.), and sulphur is less so (averaging 8 gp/lb.). Charcoal is cheap (1 cp for a 5-lb. bag) and generally available, preferably from the burning of willow wood. Willow faggots cost 5 sp per cord (a cord can be measured in many ways, but is usually 128 cubic feet). Local supply affects these prices.

The formula for gunpowder is generally 75% saltpeter, 15% charcoal, and 10% sulphur, but these proportions vary if the powder is used for blasting. One infamous use for gunpowder is commemorated in the expression "hoist with his own petard." The petard was a bucket of gunpowder a gunner was supposed to take, dodging arrows and the like, hang on the gate of a hostile stronghold (hammering in his own nail to hang it on, if none were handy), and then ignite, to blow in the gate. It was not, as one can see, very popular with gunners.

Medieval guns

Medieval guns were of all manner of names and calibers. Often individual weapons of the same caliber made by the same maker varied greatly in weight and dimensions.

Some guns loaded through the breech and others through the muzzle. They were made of iron, steel, cuprum (hardened copper or brass), latten (crude brass), and "gunmetal" (or bronze, an alloy of 90 parts copper and 10 parts tin). Bronze was stronger than iron — but, in early examples of the alloy, the proper proportions of copper and tin were unknown. Smiths guessed and, as a result, a lot of bronze guns blew up.

Early guns (circa 1350) were small, firing balls of up to 3 lbs. weight. By 1400, guns fired balls of up to 200 lbs. Smaller-caliber guns remained more accurate than those of large caliber. The largest known gun of this period was the Russian "King of Cannons" built in 1502. It had a caliber of 915 mm, and fired a one-ton missile down a 17' barrel.

Guns fired quarrels, balls of iron, brass, and stone (sometimes strengthened with iron hoops), and special treats like heated shot (a wad of damp clay between the powder and the ball prevented the gun from exploding) and hollow shot filled with gunpowder that was intended to blow on impact. Cast-iron balls replaced stone (iron balls had more punch), but were heavier and had to be far smaller if gunpowder was to hurl them with the same force. Later, metal grew too expensive, and stone balls were used in quantity again.

Charles of Spain, in 1550, made the first attempt to standardize gun calibers, to let balls for one gun be used in another. His artillery was of seven types. By 1753, there were nine calibers of English guns, differing

in size and weight depending on whether they were iron or brass. Confusion of size and exact statistics on early guns is rampant, so the following tables use the sixteen English gun types of the mid-1500s. If these seem too exhaustive, scale down the table as follows: handgun, ribald, cannon, culverin, and saker as is, and the listings of bombard (everything larger than a cannon), dolphin (everything between culverin and saker), and serpentine (everything smaller than a saker). Listings follow in the Abbreviated Table.

Names used in the table have been applied (and misapplied) to all sizes of guns by writers of various times, and some names (such as "curtail" and "sling") belong to guns whose nature and caliber are unknown. Culverin is Latin for "snake"; guns were often named for reptiles of mythology — the fire-breathing dragon became "dragoon."

Firing guns

Gunpowder is a perilous substance, and handling a medieval gun was often more dangerous than facing one. There is a 10% chance (not cumulative) that a gun explodes when fired. (See AD&D module S3, *Expedition to the Barrier Peaks*; treat the explosion as a grenade blast, effective within 30'.) This chance is lessened by 5% if the gun crew is experienced in handling the weapon in question, and lessened further (-1%) if the gun itself was successfully fired before. However, if the gun has been fired 25 times without careful examination and maintenance by a gunsmith, the chance of explosion increases by 2% with each additional firing.

The DM should take careful note of other factors (such as flaming arrows on a battlefield) that may affect premature explosion. The most common cause of such an accident was overcharging a gun — that is, using too much powder. The DM should judge when the gunner, by mischance or upon instruction, has used too much (a culverin requires 12 lbs. of gunpowder per shot; smaller caliber guns less, and larger caliber guns more).

Basically, operating a gun includes the following steps: Unload the gun from its carriage; emplace it (the gunner ensuring it is aimed); clean the barrel; mix the gunpowder (generally done by the master gunner, while his crew positions and emplaces the gun); load the charge into the gun; wad it (to cap the charge); tamp it (so the charge is packed together and will burn quickly and evenly); load and ram the shot; light the charge by slow match, touchhole, or powder trail; and, head for cover before the blast goes off.

After firing (assuming the gun and some of the enemy and crew survive), the gun must be re-aimed, the barrel cleaned out, and the weapon reloaded. Cleaning out all those barrels is why the ribald (see table) has a low fire rate. Increasing the number of people in the crew can as much as double the firing rate, but only so many men can

work around a gun before they start getting in each other's way.

Naval use of gunpowder

DMs should not allow successful water-borne use of guns, confining gunpowder to use in incendiary missiles hurled by mechanical engines such as catapults. Naval warfare can be fearsome enough with this and "Greek fire," without using guns.

Men historically made fast work of the problems of guns at sea, but the DM can make the troubles insurmountable: Guns are very heavy. They fall through damaged decks and hulls, and can cause a ship to roll over and capsize if they assume unbalanced positions onboard. Their recoil (before the

days of traveling carriages) was absorbed entirely by the timbers of the ship, and the distressing tendency of guns to explode destroyed many vessels. Any vessel with a gun also has an extremely vulnerable area: the gunpowder magazine.

Strategic importance

Even when guns made more noise than damage, they had a powerful effect upon the behavior of horses and a lesser effect on the morale of warriors. Despite the expense and battlefield impracticality of guns, romantic, forward-looking — and desperate — rulers will be most interested in controlling the production and use of guns (and gunnery).

In Piper's *Lord Kalvan of Otherwhen*, the priests of Styphon built an empire on their control of gunpowder. Guns and the knowledge of their construction were of priceless strategic importance. The successes of Lord Kalvan, and historically of John Zizka and of Gustavus Adolphus, were due to putting their mastery of this knowledge to battlefield use.

A DM may also consider guns of immense strategic importance when a too-cocky player character takes his *dragon slayer* sword in hand and rides out upon reports of "a great snakelike monster that belches fire with much noise," expecting another rich treasure and easily earned level. . . .

Early firearms

Gun name	Caliber (inches)	Wt. of missile (gp)	Range (in game) Min.	Range (in game) Max.	Damage S-M	Damage L	Rate of fire	Crew (min.-max.)	Cost (gp)	Avg. wt. (lbs.)	Avg. length ('/")	Siege Attack: Points of damage against Wood	Earth	Stone	Rock Soft	Hard	Def. point value
Handgun	1	2	1	50	2-6	2-6	1/2	1-2	30	6	1'1	—	—	—	—	—	—
Ribald	1	2	1	50	2-6²	2-6²	1/24⁴	1-3	380	80⁵	4'³	½	—	—	—	—	½
Rabinet	1	5	20	200	1-10	1-10	1/2	2-3	200	300	3'	1	—	½	—	1
Serpentine	1½	20	50	600	1-10	2-12	1/2	2-3	400	420	4'	2	—	1	½	2
Falconet	2	20	75	900	2-12	2-12	1/2	2-3	800	500	6'	4	—	2	1	3
Falcon	2½	30	100	1000	2-16	2-16	1/2	2-3	1000	800	6'4"	5	—	3	1	4
Minion	3¼	40	120	1200	3-24	3-30	1/3	2-4	1600	1200	6'6"	5	—	4	2	5
Saker	3½	60	150	1600	3-30	3-30	1/3	3-5	2000	1500	7'9"	6	½	4	2	6
Bastard culverin	4	70	170	2000	4-32	4-32	1/3	3-6	2200	2600	9'	6	½	4	3	7
Demi-culverin	4¼	90	200	2200	4-32	4-40	1-3	4-6	2300	3000	11'6"	7	½	5	3	7
Basilisk	4¾	120	300	2400	4-32	5-20	1/4	4-7	2400	3280	11'8"	7	5	5	3	7
Culverin	5¼	180	300	2600	4-32	5-30	1/4	4-9	2500	4000	12'	8	1	6	4	8
Pedrero	6	240	280	2500	5-20	5-30	1/5	4-11	3000	4200	9'6"	8	1	6	4	8
Demi-cannon	6½	320	260	2300	5-20	5-40	1/5	5-13	3600	4500	11'	8	1	6	4	9
Bastard cannon	6½	350	260	2200	5-30	5-40	1/6	5-13	4000	5000	10'11"	9	1	6	4	9
Cannon serpentine	6¾	380	260	1900	5-40	5-40	1/8	5-14	4250	5600	10'11"	9	2	7	5	9
Cannon	7	400	250	1700	5-40	5-50	1/10	5-15	4500	6000	10'9"	10	2	7	5	10
Cannon royal	8½	680	200	1200	5-50	5-50	1/14	6-15	4900	8000	8'6"	12	3	8	5	11
Bombard	12⁵	2000⁶	100	500	6-48	6-60	4/day	7-15	5000	8000	12' +	14	4	10	6	12

1 — Does not include the 2' stock.

2 — This value is per barrel, of which there are twelve; thus, total damage done is 2-6 (2d3), rolled twelve times.

3 — Each barrel must be individually cleaned out, charged, tamped, loaded, primed, and lit (and the whole aimed). With two men, the rate of fire rises to 1/12, or once every 12 rounds. A third man raises it to once every 8 rounds. The rate cannot be further increased.

4 — The ribald's weight includes cart.

5 — This is its longest dimension; the ribald (with cart) was 2' wide, 4' long, and 3' high.

6 — Maximum value; smaller sizes possible.

Early firearms (abbreviated table)

Gun name	Caliber (inches)	Wt. of missile (gp)	Range (in game) Min.	Range (in game) Max.	Damage S-M	Damage L	Rate of fire	Crew (min.-max.)	Cost (gp)	Avg. wt. (lbs.)	Avg. length ('/")	Siege Attack: Points of damage against Wood	Earth	Stone	Rock Soft	Hard	Def. point value
Handgun	1	2	1	50	2-6	2-6	1/2	1-2	30	6	1'1	—	—	—	—	—	—
Ribald	1	2	1	50	2-6²	2-6²	1/24⁴	1-3	380	80⁵	4'³	½	—	—	—	—	½
Serpentine	2½	25	50	900	2-12	3-24	1/2	2-4	1000	1000	5'	3	—	2	1	3
Saker	3½	60	150	1600	3-30	3-30	1/3	3-5	2000	1800	7'9"	6	½	4	2	6
Basilisk	4	120	200	2100	3-30	4-32	1/3	3-7	2200	3000	10'	7	½	5	3	7
Culverin	5¼	180	300	2600	4-32	5-30	1/4	4-9	2500	4000	12'	8	1	6	4	8
Dolphin	6	320	270	2100	5-30	5-40	1/8	4-12	3500	5000	11'	9	1	6	4	9
Cannon	7	400	250	1700	5-40	5-50	1/10	5-15	4500	6000	10'9"	10	2	7	5	10
Bombard	12	2000	100	900	5-50	6-60	1/20	6-15	5000	8000	9'	12	3	9	6	12

A second volley

Another shot at firearms, this time smaller ones

by Ed Greenwood

From #70, February 1983

Since the appearance of "Firearms" in DRAGON® issue #60, several readers have requested a similar treatment of the small arms that developed from the handgun. Accordingly, here is a brief look at the arquebus and its successors. The historical development and battlefield use of such weapons are familiar to many gamers and readily available in library books to most others, so military history pertaining strictly to our "real world" has been omitted.

It is again recommended here that in an AD&D® game campaign, gunpowder should be considered undiscovered or inert, so that firearms cannot be used in the "standard" fantasy setting. Experimental and enjoyable play involving firearms is best safely confined to parallel worlds (alternate Prime Material Planes which can be reached only by the use of magical items, spells, or gates).

A campaign can be quickly unbalanced by firearms that are too accurate, easy to use, or numerous. I once visited a campaign in which a cache of weaponry culled from the GAMMA WORLD™ game was walled up in the first level of a dungeon. Excavations into a suspiciously circumvented area on our dungeon maps won us an arsenal of powerful explosives and lasers — and deadly boredom. Frying our first dragon was exciting, and the second was a workmanlike but still enjoyable job. But the third was routine, and the rest (it was a large dungeon) were boring. Once we'd run out of dragons, we sallied forth from the looted dungeon and barbecued a nearby wandering army of orcs. Play soon ended in that campaign; the party members became absolute rulers of an almost featureless landscape, having destroyed everything they didn't fancy the looks of.

On the other hand, the occasional "hurler of thunderbolts," held by an individual NPC and jealously guarded for use only in dire emergencies, is an acceptable and useful spice for an AD&D campaign in need of taming. Long-time readers of DRAGON Magazine may recall (from "Faceless men and clockwork monsters," issue #17) an adventurer who recognized a firearm because he had once seen a mage in Greyhawk with "such a wand." Such rarity and misunderstanding (i.e., the assignment of magical status) of firearms appears the best way to handle such weapons in an AD&D game. [The mage with the "wand" might have been Murlynd, described in DRAGON issue #71, page 21. — Editor]

Before embarking on a brief tour of the small arms developed from the handgun, it is well to bear in mind that during these times, no large munitions factories or production standards existed (and, unless all firearms in the AD&D setting come from one source, this is likely to hold true in play as well). As a result, almost every weapon is unique, having individual characteristics due to varying barrel dimensions and materials, amount and mixture of gunpowder used, and differences in the shot employed. Small arms were in use for a very long time before King Gustavus Adolphus of Sweden introduced a fixed cartridge of bullet and powder. Until then, everyone measured their own powder charges on the battlefield. The timid did little damage to the enemy; the reckless blew themselves up. The statistics shown on the tables given in this article should therefore be treated as a typical base, to be modified freely to fit the situation at hand.

It is also necessary to keep in mind the accoutrements of a gunner: oil, to keep the weapon in working order and free of rust; a watertight carrying container for gunpowder (such as the powder horn of the American frontier); rags for cleaning and wadding; shot — usually large metal balls for piercing armor and stopping men, and handfuls of tiny metal pellets for shooting fowl and vermin; and, a rod or rods (often carried slid down one side of a boot) for cleaning out the barrel and ramming the shot home. Details of these vary from weapon to weapon. A DM should keep track of such heavy and awkward gear, and try to keep the use of guns a fussy and not-too-rapid business — in a street fight, one should grab for a blade, rather than whipping out a pistol or musket and clearing the field — because one would risk a fatal misfire, and in any case would have to coolly stand for one round loading the firearm between each and every shot. A more complete list of a gunner's equipment is provided later on, for those who wish to consider encumbrance in detail.

The primitive handgun was a small cannon on a stock. It was fired by means of a red-hot wire put through a touchhole. Later, a slow-burning match (usually a cord that had been soaked in niter and diluted alcohol, and then dried) replaced the wire. The flame of the "slow match" was more likely to ignite the gunpowder, and the implement was both easier and safer to use. A wire had to be heated in a non-portable

fire laid on the ground, which could be perilous with gunpowder nearby, whereas a slow match could be lit with flint and steel at a safe distance, and carried to a more mobile gunner.

Later, the matchlock replaced the hand-held match. At the pull of the trigger, the lit match was dipped in a pan of gunpowder by the S-shaped clamp (or "serpentine") which held it. Firing became more rapid and more accurate — a gunner could now look at his target when preparing to fire, rather than concentrating on the touchhole.

The matchlock was faster than the handgun, but not fast by any other standards. Firing it required ninety-six separate actions, such as: measuring the powder and pouring it down the muzzle; dropping in the lead ball and then a wad of rag; uncovering the priming pan, filling it with powder, and closing the pan again; adjusting the position of the match in the serpentine, and lighting the match; then, opening the pan again, aiming, and pulling the trigger. As author Richard Armour puts it, "the gunner hoped his target would hold still while all this was going on." (This last statement is from Armour's hilarious book, *It All Started With Stones and Clubs (Being a Short History of War and Weaponry from Earliest Times to the Present, Noting the Gratifying Progress Made by Man Since His First Crude, Small-scale Efforts to Do Away with Those Who Disagreed With Him)*; published by McGraw-Hill, New York, 1967.)

The matchlock had other disadvantages, too. A premature ignition of the potentially dangerous open pan of powder, too much powder, or simply an uneven distribution of powder in the pan (ever try carefully leveling a spoonful of powder in the midst of a battle?) could cause an explosion at the expense of the gunner and not the target — the source of the expression "flash in the pan."

The barrel of a matchlock was fouled by gunpowder with each shot. In a long engagement, its accuracy declined as the recoil caused by the fouling grew wilder, leaving a gunner's shoulder numb and bruised. A curved stock was soon devised to reduce the recoil impact. There was also the problem of shooting in the rain; water could easily put the match out. Surprise was impossible because of the smell, glow, and noise of the matches; and it was not unheard of for one gunner to set off his own comrade's ammunition. Although names

have been applied rather loosely over the years to all sort of weapons, I have confined "arquebus" to the earlier version of of the handgun, and "caliver" to the lightened matchlock musket.

The musket was an upgunned arquebus, and consequently was so heavy that it had to be supported on a crutch or a rest. It was almost a hundred years before the weapon was lightened enough to dispense with the supports. Although the musket fired a heavier shot, it also jumped in its rest when fired, resulting in lower accuracy. But its bullets could pierce the best armor that

could be worn by a foot soldier. (As this became known, soldiers in full armor all but disappeared from battlefields, and subsequent small arms could be made smaller. The musket no longer needed its rest.) Musketeers still had to be protected by non-shooters while loading their pieces, but firearms became the dominant force in warfare almost overnight. Infantrymen who did not employ muskets were armed with pikes, so that a musketeer could undertake the slow, clumsy process of reloading safely within the long reach of defending pikemen. When pikeheads were attached to muskets

(upon the invention of the bayonet), the pike disappeared.

Two "firelock" mechanisms, the wheel-lock and the flintlock, were developed to solve the problems of the slow match. Both could be loaded and primed at leisure, to be fired at a moment's notice. But both were more expensive than the matchlock, more likely to go awry, misfire, and need repairs, and could be fired fewer times before needing cleaning. As a result, they took time to catch on.

The wheel-lock was never widely used by infantry. Rather than a match, it employed
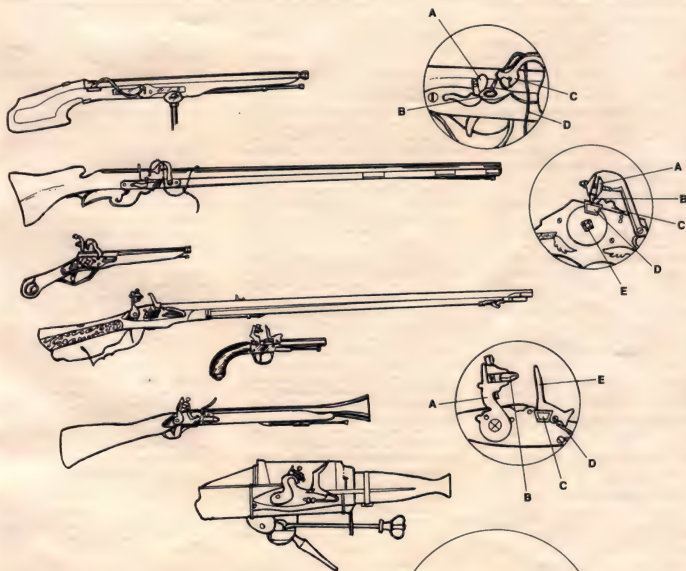
Firearms, from top down: Arquebus (note rest), Matchlock musket (note match wound around barrel for battlefield use), Wheel-lock pistol (note ball at end of grip, for use as a club), Flintlock musket, Flintlock pistol, Blunderbuss, and "trap gun."

Key to insets in circles, from top down: Detail of matchlock, showing (A) pan cover, (B) priming pan with gunpowder, (C) serpentine clamp, and (D) slow match; Detail of wheel-lock, showing (A) dog-head, (B) flint, (C) pan cover, (D) pan, and (E) shank, the spindle on which a wrench is fitted to wind the wheel spring; Detail of flintlock, showing (A) cock, (B) flint, (C) pan, (D) frizzen spring, and (E) frizzen. Bottom circle shows a trap gun set up, ready to fire along any of three trip wires.

a saw-edged wheel wound up with a spring, with a piece of iron pyrite or flint held against it in a dog-head vise. When the trigger was pressed, the wheel would spin (in the fashion of a cigarette lighter), shooting a shower of sparks into the priming powder in its enclosed pan. If it was properly loaded with dry powder, adjusted and wound, a wheel-lock firearm would almost certainly fire when the trigger was pulled, even in a rainstorm. Cavalry could carry loaded pistols in their holsters for hours or even days. Although the wheel-lock was complicated and slow to load, this "at the ready" feature revolutionized the tactics of cavalry. Rather than using the shock of their charges to strike and overrun infantry (the reason for pikes), cavalry now performed such dangerous maneuvers as the caracole, in which armored cavalrymen carrying three pistols each formed up in lines. Each line in succession rode up to the enemy, fired, and swerved off to reload and form up again in the rear. Not only was this maneuver chiefly complicated, but a cavalryman riding close enough to shoot enemies could himself be shot at, both by firearms and longbows. Nevertheless, the addition of wheel-lock pistols restored to cavalry troops the effectiveness they had enjoyed before lines of pikes and muskets stood to oppose their every charge.

The flintlock was to become the standard infantry weapon for more than two hundred years (until the advent of the percussion cap, which resulted in the cartridge or bullet familiar to us now, and a firing mechanism consisting of a pin driven forcefully into the rear of the cartridge by a pull of the trigger). The flintlock resembles a tinderbox — a flint strikes steel, and the sparks created fall into the priming powder. The flint is held in a cock, or vise, which (unlike the wheel-lock, wherein the vise is stationary) flies forward like the hammer of the familiar Colt revolver, to strike a steel arm (the frizzen) when the trigger is pulled. Although not as sure to fire as either the matchlock or the wheel-lock, the flintlock was cheaper and simpler, more durable, and

easier to repair in the field. If the flint does not need adjusting, a flintlock can be loaded slightly faster than a matchlock — and it can be loaded in advance and carried ready to fire one shot at a moment's notice. The persistent failing of the flintlock revealed over centuries of use is that it too often misfires (does not go off). At least, this failing is preferable to one of the main drawbacks of earlier firearms, which was that they literally blew up in the gunners' faces.

Firearms were continuously modified and improved upon, but this article will not follow on to rifled barrels and other innovations of the Napoleonic era and later on. Instead, mention must be made of another development of the same idea, which was basically to increase the chance of striking a target by firing a spray of shot rather than a single bullet or ball. A blunderbuss has a short, trumpet-flaring barrel which is loaded with powder, wad, and a handful of iron balls (or whatever was available). This was the chief advantage of the blunderbuss: One traded muzzle velocity (and thus penetrating power, range, and accuracy) for the ability of the weapon to take stones and other projectiles that needed not be carefully shaped to a specific bore (barrel diameter). Farmer Giles, in J.R.R. Tolkien's delightful fantasy *Farmer Giles of Ham*, used "anything he could spare to stuff in" as ammunition: old nails, bits of wire, pieces of broken pot, bones, stones, "and other rubbish." Giles fought off a giant with his blunderbuss, even if firing it did leave him flat on his back.

A blunderbuss barrel can be made of brass or a length of stove pipe; it is easy to build and to repair. It can fire anything small enough to easily fit in the barrel: a pound of nails, say, or odds and ends of lead castings or rusting ironmongery (this last usually resulted in infected wounds). A covered blunderbuss, known as a spring gun, could be set up to discourage poachers and other intruders. It would be mounted on a swivel post a foot or less off the ground, and attached to three or four long

trip-wires leading off in all directions. When someone disturbed one of the wires, the strain would act on a rod beneath the gun attached to the hammer or cock of the flint-lock, and the gun would instantly swing around and fire along the tripped wire.

Any gunner in an AD&D game setting must carry the supplies of ammunition and tools necessary to keep his or her temperamental weapon in working order. In practical terms, this generally consisted of keeping one's gunpowder dry and cleaning the weapon after every use. Taking a primitive firearm into battle is a time-consuming job. It is also a skill to use it effectively; every shot must count when the firing rate is so slow, and one cannot snatch up a weapon and pick off a target when it must be carefully loaded with a precise amount of powder and the right amount of shot. (The use of too-large shot will destroy the weapon and usually also the gunner, whereas too-small shot rolls along one side of the barrel, acquiring a spin perpendicular to the line of fire, and therefore an unpredictably curved flight path.) It must also be aimed with care; none of the guns described above will work if not upright. The "snap shot" of the western gunfighter or modern commando is impossible to execute.

Necessary gear for a gunner consisted of matches or flints, a large flask of (coarse) gunpowder, and a small "touchbox" of fine priming powder. Often these last were of wood, carried slung on a bandolier like the modern movie GI carries grenades. When pulled, the top of the flask remained behind, and the gunner put a thumb over the top of the touchbox (which contained just enough powder for one firing) before he could upend it into the priming pan. The matchcord was carried wrapped around one's hat (inside the hat in wet weather), and flints were usually carried in a belt pouch, wrapped to keep them from chipping and striking sparks from one another if the holder had to run or scramble about.

Bullets or shot were carried in belt pouches. When in action, a couple for immediate use were often held in the gun-

Early handguns

Gun name	Typical caliber	Range (in game)			Damage		Rate of fire (one man)	Rate of fire (gunner and loader)	Cost (gp)	Avg. weight (lbs.)	Avg. overall length
		S	M	L	S-M	L					
Arquebus	Widely variable	3	7	12	1-10	1-6	1/3	3/2	500	25	3′4″ + rest (up to 4′6″)
Caviler (matchlock musket)	Variable	4	8	14	2-9	1-8	1/2	1	450	11	4′6″
Dragon ("Dagg" or "horse pistol") (wheel-lock pistol)	.50	1	2½	4	1-6	1-3	1	1	600	4½	1′4″
Flintlock pistol	.60	2	3	5	1-6	1-4	1	1	550	2	1′2″
Early flintlock musket	.70	10	20	30	3-12	1-10	1	1	800	10	5′6″
Blunderbuss	Widely variable	1	2	3	1-10	1-10	1/2	1/2	500	8	2′4″

Note: The prices shown on the table are those in an area where weapons are plentiful, and ammunition, repairs, or manufacture of same are nearby. Prices should be doubled, tripled, or even increased by a factor of ten where weapons are rare or are objects of prestige and power.

ner's mouth, much as a tailor holds pins. All firearms also required ramrods (most of which were carried in a slot provided in the gunstock), scrapers, cleaning rags, and curved metal extractors (which resemble miniature golf irons) for raking out bullets or shot. Making bullets required lead and a brass mold; often only one mold would produce bullets of the right size for a particular gun. Flint, steel, and dry kindling were required for lighting slow matches or laying the fire necessary to cast bullets. To use the early arquebus in battle, a gunner needed a

helper to tend his fire, mix the ingredients of gunpowder (at a safe distance from the fire), and carry the weapon's rest. In battle, the gunner carried the rest about by a loop of cord tied around his wrist. Wheel-lock weapons also required a spanner, or key, which wound up a chain attached to the spring which spun the wheel, usually carried tied to one's belt so that it would not be lost.

A gunner also carried a sword and a dagger (which served also as eating knife, flint scraper, and cleaning tool), and in a

pinch could use the pointed end of the crutch-shaped rest for defense. Most early pistols were made with huge balls or knobs at the butt end of the grip, so that when empty they could be used as clubs — doing 1-3 points of damage, 1-4 if a mounted wielder is fighting a target on foot. A musket uses up to two ounces of powder per firing; one pound of lead made eight musket balls if they fitted the barrel tightly, or ten if they "rolled in." Modern shotgun gauges developed from this sizing of shot by the number of bullets to the pound.

"NOT ONLY IS IT A +2 OVERCOAT, BUT IT PROTECTS ME FROM BECOMING CHEESECAKE."

"ACTUALLY, I WAS A THIEF, UNTIL I MADE A WISH FOR A MILLION BUCKS."

Instant adventures

Here are the ideas; just add imagination

by Michael Kelly

The player characters have just finished once again retrieving a small fortune from the depths of yet another dungeon. The players are sitting back, basking in their latest slice of limelight, while the referee is methodically populating (or repopulating) a new dungeon level.

Then one of the players idly says, "Let's do something different, instead of going back to the same old place." Instantly, the idea catches on with everyone in the playing group — especially with the referee, who feels a growing sense of panic. Something different? How often does a referee have "something different" that can be all set up and ready to play on a few moments' notice?

This article is designed to alleviate that problem and stimulate variety in a campaign by providing guidelines for the creation of several dozen simple, but perhaps untried, types of adventures. Many of these ideas, along with a big dose of imagination and some quick work with pencil and paper, can be turned into ready-to-run adventures in considerably less than an hour.

The chart of "instant adventures" can be used for more than one purpose. If the referee is pressed for time, he or she can scan the "Time" column first. "A" type adventures will generally take up to two hours to prepare, sometimes more. "B" adventures can be set up and ready to play

in somewhat less than two hours. "C" scenarios are quickly assembled, usually needing only 20 minutes or so of preparatory work.

If time is not a great consideration, the referee can look over the list for a type of adventure that sounds intriguing. Of course, the adventuring ideas, requirements, and notes which describe the goings-on can be used as are, or they can be modified to suit the circumstances of a certain campaign or a particular group of characters.

None of the suggested adventures are spelled out in great detail, and they're not supposed to be. These topics are frameworks upon which the referee must build a lot of accessories — non-player characters, maps and floor plans, treasure — topping off the creation with a plausible method of conveying to the players the information they need to know in order to begin.

For example: A referee in a hurry browses up and down the "Time" column until he sees a "C" adventure that strikes his fancy — in this case, "Salvage." The essential requirements are listed as "An item, vessel, or vehicle lost in the wilderness, and a rumor or map referring to same." The referee finds a place on his world to locate the wreckage of a seafaring ship (perhaps underwater, perhaps on a beach or reef) and marks that spot. Then he

draws a rough map, showing only as much as necessary of the area and its surroundings to give the players (through their characters) a good chance of locating the site.

Next, the referee makes some arrangements for the map to fall into the hands of the characters. Perhaps a local thief will accost them and offer to sell a cloak at a cheap price. Upon obtaining and examining the cloak, the players discover an old parchment sewn into the lining. It is identified as showing the whereabouts of the wreck of the *Neptune's Spray,* which disappeared on a voyage while carrying a fortune in silks and spices.

And so, the characters are off. Under "Notes," the referee reads that "Salvage is a high-risk adventure; there may be a fortune or it may all be gone." There is plenty of time during the actual play of the adventure for the referee to decide whether the loot can be recovered, or whether it has been ruined by exposure to water or the elements. And, it is a relatively simple matter to come up with various minor (and perhaps major) obstacles to confront the party during and after their journey to the salvage site. But don't make the obstacles too major; the idea is to get them to play through a salvage adventure, not to kill them off, scare them away, or discourage them before they've actually taken on the mission which was designed for them to perform.

Type of adventure	Requirements	Time	Notes
Assault/raid (fortress)	Maps and possibly floor plans; offensive and defensive weapons; location of critical stores; number and types of defenders	A	
Assault/raid (town)	See above	A	
Assault/raid (ship)	See above	B	
Assault/raid (ambush)	Victims, with a list of weapons and loot	C	
Assault/raid (skirmish)	Small military group (*e.g.,* border patrol); arms, armor, and treasure	B	
Assault/raid ("body snatch")	A small military encampment	C	This is a military operation in which an attempt is made to capture an enemy alive for interrogation purposes.
Banditry (caravan/convoy)	Composition of forces; cargo list, and distribution of same	B	See AD&D® *Monster Manual* under Men (Merchant).
Banditry (mugging)	A victim; his weapons and loot	C	
Banditry (building)	A building layout (*e.g.,* bank or store); defenses and location of safe	B	

Type of adventure	Requirements	Time	Notes
Bounty hunt/posse	A wanted person or persons, preferably armed, dangerous, and with a price on their heads	C	Characters may voluntarily go bounty hunting or may be drafted into a posse.
Brawl	Classically, a barroom scene; tables, chairs, patrons, and bar must be located and described	C	A cliche, true, but always fun
Breakout, jail	Prison map; defense scheme; location of all prisoners, cells, and guards; a person to rescue!	B	
Breakout, prison camp	A map of an enclosed, outdoor prison camp; location of guards and defenses	B	Instead of breaking someone else out, perhaps the characters may have to break out themselves!
Breakout, private prison	A dungeon or tower; otherwise as "Breakout, jail" above.	B	Rescuing a fair maiden is the classic example of this.
Caravan escort	Composition of caravan (i.e., number of mules, wagons, etc.); defenses	C	See AD&D *Monster Manual*, Men (Merchant); also, type of caravan should be specified (e.g., food, spices, silks, etc.).
Cattle drive	Cattle; sellers and buyers; departure and destination points; routes to and from	C	Not only cattle, but any type of livestock may be used; also, a trail may not yet be in existence (see Trailblazing).
Coup d'etat	A region with a ruler to be overthrown or discredited	B	This region may be as small as a village or as large as an empire.
Duel, one-on-one	A real or imagined insult; a challenge; seconds, and a judge; statistics and weapons of challenger	C	One to keep in mind when a character starts to fool around with a lord's lady!
Duel, team vs. team	A "home team;" its weapons and special abilities; rules for engagement; a suitable locale	B	Combat may be lethal or non-lethal.
Execution/assassination	A victim; a sentence to be carried out, or an employer.	C	This should not be just a simple "hit." Rather, the target should be far away, powerful, and protected.
Exploration	An unknown region; a commission to explore and report	C	The area may simply be a possible construction site, or it may be an entire continent.
Feud, inter-family	Brief history of feud and feuding families; reason for involvement of characters	B	
Feud, inter-business	History of feud; nature of feuding parties; fees to be paid to "hired guns"	B	
Hijacking	A vehicle or vehicles to be hijacked; a reason for hijacking same	C	
Hunt, big-game	A large, nasty beast; some obstacles for the player characters, and a prize for the capture of the thing	B	The prize may be greater if the prey is brought back alive. (This is intended for sport.)
Hunt, commercial	The location of an animal lair; the treasure within; above all, the associated infants and eggs	B	There is good money to be had selling animals, mounts in particular, on the open market. However, this can be a very high-risk venture; also, a professional hunter *must* be hired.
Intrigue	A plot (to be accidentally uncovered by the PCs); statistics and abilities of conspirators	A	This usually involves a wicked relative of a ruling family attempting to usurp power by discrediting or eliminating someone near the throne. Characters may either thwart the plot or join it!
Kidnapping	One victim; location of same; social status of victim; possible ransom makers	B	Number and type of bodyguards at referee's discretion.
Madman	One berserk individual to terrorize a district, town, or quarter, by any means	C	He may be rabid, thus contagious!

Type of adventure	Requirements	Time	Notes
Obstacle course	A defined territory with several lethal or non-lethal obstacles	B	Typically, a powerful individual will offer future employment; however, the PCs must first pass a "little test." Survivors get the job!
Parcel/message delivery	An item and nature of same; name of individual to receive item and under what conditions; employer and terms of employment	C	The item or message need not be necessarily known to the characters. If the item or message is of considerable power or importance, someone will surely try to rob the adventurers.
Personnel escort	A person or persons to escort; a purpose to the voyage; employer and terms of employment	C	
Pilgrimage escort/crusade	A holy shrine to visit, worship, or rid of infidels; a typical caravan with supplies	B	See AD&D *Monster Manual*, Men.
Piracy	The layout of a vessel; its location (deployed or in port); crew, defenses and cargo	B	Risky; profitable, but those caught must pay terrible dues.
Rescue, from men	Perhaps a town surrounded by hostile forces that needs reinforcements, or someone about to die at the hands of unfriendly natives.	B	
Rescue, from natural forces	A good-sized earthquake, flood, fire, or blizzard should do the job; someone or something to rescue; its location and any intervening obstacles	B	This is mostly for characters with morals, but there is an occasional reward.
Riot	An angry mob with a grudge	C	Characters may join the mob, or be drafted to quell the riot and control looters.
Sabotage/arson, building	Factory, shop, or other building plans; defenses; type of building and construction location of machines and equipment inside	B	Characters run two risks: 1) becoming wanted by the law; and, 2) getting caught in their own blast!
Sabotage/arson, ship	Plans for vessel and immediate vicinity of waterfront/spaceport; nature of onboard security; nature and location of cargo	B	See above
Salvage	An item, vessel, or vehicle lost in the wilderness and a rumor or map referring to same	C	Salvage is a high-risk venture; there may be a fortune or it may all be gone.
Smuggling, general	An illegal object or substance to smuggle; a source for such items	C	The longer the smuggling goes on, the more likely the smugglers are to be caught or betrayed. Also, other underworld figures may resent the competition.
Smuggling, weapons	A war; usually revolutionaries in need of weapons and supplies; a source is needed here, too	C	See above
Spy/undercover, military	A mission; methods of infiltration and escape	B	
Spy/undercover, civil	As above, but applied in connection with police or as private investigators	B	For example, to catch smugglers
Sting/switch/swindle/scam	Suckers and a plan	B	Characters may perform this; better yet, it may be performed on them!
Tournament	A choice of events to enter (*e.g.*, jousts, light-saber duels, wrestling, etc.); opponents	B	Be sure to give the non-player characters appropriate bonuses in the statistics of their class (*i.e.*, wrestlers should have high strength, etc.).
Trailblazing	A hitherto impenetrable swamp, sea, or mountain range; an economic need for a road through; and some businessmen to stake a venture	C	Initially, a route must be found, in itself a dangerous undertaking; secondly, a road may need to be built.

Modern monsters

The perils of 20th-century adventuring

by Ed Greenwood

Readers of Poul Anderson's novel *The High Crusade* will recall the victory of a medieval barony over a galactic empire — a feat so fascinatingly unlikely as to be worthy of inclusion in an AD&D® game character's Book of Marvels.[1] Modern and future settings offer a rich alternative to the usual AD&D milieu, for characters bold (or unlucky) enough to leave their familiar Prime Material plane and take the High Crusade. Some new rules are necessary to cover the many differences between modern man or future (scientific) and vaguely medieval (sorcerous) settings. This article attempts to provide a basic framework for the DM to devise rules for the modern setting, and is designed to be used in addition to the information provided by "Sixguns & Sorcery" (*DMG*, page 112).

Adventurers being who and what they are, there will undoubtedly be combat in the modern setting, and therefore modern man and his weapons must be expressed in AD&D terms. Herein, this has been done following the familiar heroic fantasy belief that the "medieval" (AD&D game) character has far greater strength and endurance than modern man — thus dominating close combat situations — but, in this situation, he faces weapons of awesome power and complexity. This is not so much a myth; habitual hard labor and the use of armor and hand weapons will build a physique rare in modern, industrial-society man, and modern weapons deal death far more efficiently than those of medieval times.

A few moments of thought on modern military weaponry will remind the DM that AD&D characters are in the old tactical bind of fighting an opponent who has a longer "reach" and can kill them before they get close enough to deliver any attack. Survival will depend in part upon wise player tactics (discussed below), and in part upon magic. Within limitations, magic *must* work in the modern setting if player characters are to have a chance.[2]

With these decisions in mind, the DM can prepare for adventures in the modern world (whatever that is). Much of the topic (such as full-scale modern combined arms combat) is beyond the scope of this article, and weaponry enthusiasts will find modern arms simplified and scaled down to a horrific extent. Statistics for specific weapon makes and models may be substituted for the general values given in the Additional Weapons Table (hopefully, with play balance kept in mind).

The setting

Favorite landmarks, camping areas, or even specific neighborhoods and homes can be easily utilized by the DM as the setting for play, and remote or rural areas can be created with the use of an atlas and texts on geography. The most exciting and dangerous setting, however, is urban, and features of other areas can be extrapolated from urban elements or from the existing AD&D rules.

Modern men (in North America, at least) will typically be zero-level types with 1-6 hit points each. Some few will have exceptional abilities (perhaps even psionics), but such a thing as a magic-user or cleric (as the AD&D world knows them) will not exist. This does not mean that modern men cannot *become* members of such classes, but merely that not even the minimum basic training is available on their native world. The DM may allow exceptions to this rule; a few individuals who came to the modern setting from other planes may be spellcasters, and may have secretly gathered and trained apprentices. (They may well be the leaders of the secret societies discussed below under "Travel.")

Some individuals will have training similar to that of the AD&D adventurers, and some of these are detailed below. Bulletproof vests, riot gear (shields, helms, etc.), and other protective clothing will have to be expressed in AD&D terms. (AC7 is suggested for a police officer wearing that riot gear just mentioned.) Police patrols (in cruisers or walking a beat) generally consist of 2 men, armed with revolvers (".357 or .38 revolver" entry on Additional Weapons Table) and a nightstick or billy club in the U.S. or Britain, or a "bean bag" cosh in Canada (treat both as doing 1-4 damage vs. S or M, 1-2 vs. L, otherwise identical to clubs). Most policemen will be equivalent to 1st- or 2nd-level fighters, having 6-15 hit points apiece.

More powerful fighting forces, such as SWAT teams and military forces, will have heavier weaponry (see "Weaponry") and will be fighters of 4th to 7th level. Military and industrial guards may have guard dogs (cf. *Monster Manual*, war dog). Here the DM may use the Animal Guard Reaction Table from the TOP SECRET® game, or predetermine the beasts' reactions. In any event, the DM must decide the extent and effectiveness of their training.

Other exceptional characters encountered by a venturesome party may include individuals with karate, judo, or other unarmed combat training. Treat all such as 1st- to 5th-level monks, 75% being of 1st level, 10% of 2nd level, 8% of 3rd level, 5% of 4th level, and 2% of 5th level; none of these individuals will have any of the special abilities of the AD&D monk, although weapon damage bonuses, open hand combat, saving throw advantages, surprise probability, thief abilities, and freedom from damage while falling all apply. The DM may invent other types of exceptional characters, or employ government agents and vigilantes of all types, including superpowered beings, and the aforementioned travelers from other planes.

A critical decision will be what attitude the modern inhabitants will have toward the AD&D strangers. Certainly the AD&D characters will be (at least until they find and learn concealment and conformity) conspicuous, and will attract considerable attention. Will crowds gather? Fantasy readers will remember many such encounters, such as the classic scene of the witch rampaging through London in C. S. Lewis's *The Magician's Nephew*; consult these.[3]

Will modern men react with fear? (And thrown rocks?) Bewilderment? Derision, assuming the adventurers are pranksters or lunatics? Self-doubt, thinking the strangers to be hallucinations (brought on by drink, drugs, nerves, or perhaps creeping insanity)? Remember that the reactions of exceptional characters (such as guards) will be influenced by their training.

The DM must also determine ease of communication. Will the fantasy tradition of being able to speak a truly common tongue prevail, or will it be a matter of putting up with gibberish and gesturing until a *tongues* spell is cast? The value of a gold piece in modern currency, and other such tender will be acceptable, are other questions the DM must resolve. (It is a rare party that can *charm* its way into a bank and make off with the loot without raising some sort of alarm, given their ignorance of modern technology.)

Artifacts and machinery

Modern machinery will be almost entirely unrepairable by AD&D characters, who will often mistake or be unable to comprehend its purpose anyway. (This is not that unfair when you consider the vast difference in technology evident even in the metallic alloys of a modern sword, com-

pared with a medieval weapon — and that most modern drivers have only a vague idea of how their car works.) Modern machinery, especially assembly-line complexes found in factories, may prove very dangerous to AD&D characters ignorant of remote control, electricity, and the like.

Gary Gygax, writing in issue #30 of DRAGON® Magazine, gave the following damage values for electricity: low-tension alternating current, 1d6 (4d6 if victim is well grounded); low-tension direct current, 1d6 per segment until the victim is freed; and, high-tension direct current, 1d20 per segment until the victim is freed.

How the DM handles AD&D characters

vs. computers is entirely up to him or her (and on the DM's head be it). *Tongues* spells may or may not work. Artifact tables such as the one in the GAMMA WORLD® rule book, AD&D module S3 (*Expedition to the Barrier Peaks*), or DRAGON issue #100 ("The City Beyond the Gate") can be used for the examination of modern items.

Vehicles

Vehicles in the modern setting are of countless types, from the carts and beasts of burden familiar to AD&D characters, to dreaded "Iron Dragons" that roar along their rails with awesome speed and weight. The accompanying table lists the movement

rates and unique features of a few representative vehicle types. Specific makes and models can easily be added using this format. (Some of the impact damages are from Mr. Gygax.)

Most vehicle movement rates given in the table have been scaled down to as much as one-tenth of reality. The DM may wish to restore some or all of a vehicle's move in races, pursuit situations, and the like. Off-road and battlefield (e.g., ramming, evasive action) travel tends to be slower than open-road movement anyway. Vehicles will move at top movement rates only after attaining full speed in preceding rounds. A compact or subcompact car, snowmobile, or motor-

Vehicles Table

Vehicle	Maximum move (distance per round)	Length	Width	Height	Weight (not including load)	Impact damage per 10 mph of velocity	Features
Car, subcompact . . . . (includes "mini")	55″ (normal: 48″)	up to 14′	5′	4′4″	up to 2,500 lbs.	1-2	4 passengers (2 in comfort), 25-30 MPG, poor protection in collision
Car, compact	66″ (normal: 48″)	14′ to 17′	6′	4′4″	3,000 lbs.	1-4	5 passengers (4 in comfort), 20-25 MPG
Car, standard . . . . (includes police cruiser)	70″ (normal: 48″)	17′ to 18′	6′6″	4′4″	3,500 lbs.	1-4	6 passengers (5 in comfort), 15-20 MPG
Car, large	78″ (normal: 48″)	18′-20′	7′	4′6″	5,000 lbs.	1-6	6 passengers, 7-15 MPG, heavy passenger protection
Jeep	48″ (off-road safe speed: 30″)	11′	5′	5′10″	3,750 lbs.	1-2	6 passengers (2 in comfort) 30 MPG, can carry up to approx. 1,500 lbs. of cargo
Armored car	48″ (amphibious: 9″)	18′ to 20′	7′6″	8′6″	up to 10 tons	1-8	3 crew, up to 9 passengers, gun turret with 7.62mm machine gun (2,400 rounds) and 0.50 machine gun (700 rounds), possible side gunports (various sizes), armored; maximum passenger safety
Small truck . . . . (includes 2-ton pickup, vans)	70″ empty (normal: 48″)	20′	7′	up to 8′	approx. 5,500 lbs.	1-6	6 passengers (2 in comfort) 20 MPG, can carry approx. 2 tons cargo
Large truck . . . . (includes highway rigs, tractor trailers)	90″ on road (normal: 48″)	up to 70′ overall (usually 50′)	up to 8′	up to 16′ (usually 12′)	up to 200,000 lbs.	1-8	3 passengers (up to 20 can be carried in trailer), 10 MPG, can carry up to 60,000 lbs. cargo
Tractor . . . . (includes bulldozer)	14″ (normal: 4″)	up to 20′	up to 10′	10′	up to 200,000 lbs.	1-8	4 passengers (2 in comfort); durable; will survive many collisions; motive power of 30-50 horsepower (up to 200 hp possible)
Tank	30″ (normal: 18″)	30′	12′	10′	up to 50 tons	1-8*	4 passengers, gun turret with various armament (see Weaponry); armored; maximum passenger safety
Locomotive . . . . (includes subway and other trains)	85″ (normal: 30″)	60′	10′6″	15′6″	up to 250,000 lbs.	1-10	4 passengers (2 in comfort); average road unit has 2,500 horsepower and (can pull up to 30 cars)
Motorcycle . . . . (or snowmobile)	80″ (normal: 48″) 50″ (normal: 20″)	5′6″ 6′6″	1′6″ 3′	2′6″ 3′6″	500 lbs. 360 lbs.	1-2 1-2	2 passengers (1 in comfort); 35 MPG; much maintenance required; fragile, rendered inoperative by virtually any sort of collision

* — Does 2-24 crushing damage on an overrun (half if save is made).

cycle will take one round to accelerate to full speed, large trucks three rounds, a diesel locomotive five rounds, and everything else two rounds. The "normal" move distance shared by most of the road vehicles is the 55 mph legal speed limit. Additional notes on the table follow.

Armored car — A representative listing based loosely on the Cadillac-Gage Commando vehicle, with reference to other NATO types. Many armored cars are modified to serve as armored personnel carriers.

Large truck — This blanket listing covers all trucks above the size of a pickup. The length varies by type, and by law from state to state or country to country. Note that cross-country travel in a rig will be difficult for a party unfamiliar with toll roads, CB radios, truck stops, and highway patrols.

Tractor (includes bulldozer) — This listing covers farm tractors and similar vehicles for construction, forestry, and mining vehicles, including all types of crawlers. A front-end loader, for example, has 260 horsepower, weighs 51,820 lbs., and can scoop seven cubic yards in its front bucket, which can reach up 40'. Most such vehicles are much smaller, and can reach up 20' with the bucket; two fully armored characters could fit in the bucket comfortably. Crawlers (tracked vehicles such as caterpillar bulldozers) range from 145 hp and 37,120 lbs., all the way up to 700 hp and 190,300 lbs., and have a front blade up to 18' in width. From experience, I can tell you that if a tractor hits a tree, the tree usually loses!

Tank — Again, this is a representative listing. The M60 Main Battle Tank, for instance, is 48 tons; it and the Sheridan light tank are the American AFVs most likely to be encountered. The Sheridan fires a 152mm shell or a Shillelagh missile (see Weaponry; information on specific types can easily be found at a local library, or in many wargames).

Locomotive — They vary greatly in size (from 10' long to almost 80') and power (from 10 to 6,600 hp), and are usually diesel-electrics in the U.S. (Most subways and interurban trains are electrical, and travel at high speeds). Mainline locomotives have upwards of 1,200 hp, and approximately the dimensions given in the table; a typical type (the General Motors GP38) has 2,000 to 2,200 hp, 65 mph maximum speed, weighs 250,000 lbs., and is 59'2" long, 15'4" high, and 10'4" wide. A larger unit, the General Electric U30C "U-boat," is 3,000 hp, 70 mph maximum speed, weighs 363,000 lbs., and is 67'3" long, 15'4½" high, and 10'3¼" wide.

Freight cars can carry from 50-125 tons of cargo each. Bulk goods (coal, ore, grain, chemicals) are usually carried in 100-ton cars, while merchandise is carried in 50- or 60-ton cars. A survey of U.S. railroads shows that freight train speeds vary from 6-40 mph (the average is 15 mph), and passenger train speeds vary from 10-60 mph (the average is 33 mph). The maximum speeds allowed by the railways vary from

6-100 mph, and the overall average maximum speed worked out to 31 mph. (At least 260 railroads have no maximum.) On roads with different maximum speeds allowed for passenger and freight trains, passenger trains are always the faster, usually by 10 or 15 mph. Note that a train at speed may take a matter of *miles* to come to a stop; engineers usually can't help but hit unfortunates tied to the tracks!

Motorcycle, snowmobile — This listing can also be used for ATV fun vehicles. These vary from 12-30 hp (30" move distance), and have tracks or large low-pressure tires. Most carry five gallons of gas, can negotiate the worst terrain short of mountainous, and carry four people (six in a pinch). Some are amphibious (6" move rate). These vehicles vary in weight from 350-850 lbs., and range up to 10' long, 4' high, and 5' wide (most of them are around 8' × 3' × 4½'). Motorcycles and snowmobiles, it should be remembered, also vary widely in dimensions and performance. Both can be increased in terms of passenger or cargo space; the former with sidecars and "saddlebags" or racks, and the latter with trailer units.

Magic in the modern world

Magic will ultimately determine the fate of an AD&D party in a modern setting. It is the party's "heavy artillery," and must be expended with caution, for it is not wholly renewable. Magic-users without spell books will be unable to regain their spells.[6] Clerics in a modern setting will be out of touch with their deities (*commune* notwithstanding) and will be unable to regain spells above second level.

Spell-casters of all types may have difficulty obtaining the proper material components for their spells (for example, a druid looking for mistletoe on downtown city streets during the summer), and substitution may greatly affect spell efficiency, power, and the safety of the caster.

It is recommended that modern characters, unaccustomed to magical illusions, must roll a saving throw of 20 to disbelieve any *illusion* cast unless they have special reasons to the contrary (*i.e.*, they have seen the illusion being cast, consumed the party in a "fun house," or something of the sort).

Some spell effects are mentioned in the Weaponry section. Development of new spells by member spell-casters can gain the party some heavy close-combat weaponry: electrified bolas, for instance. The DM may elect to penalize strong parties by allowing some or all magic items or artifacts to malfunction or fail to operate in the modern setting.

Travel

Travel to and from the modern setting can be accomplished by means of magic items (cursed scrolls, a *well of many worlds*, *cubic gate*, *amulet of the planes*, a *portable hole* placed within a *bag of holding*, etc.), artifacts, gates, spells (*plane shift*, *wish*, a

gate spell acting upon a *sphere of annihilation*, etc.). Intruders from other planes may well find traps and a reception committee awaiting them, for the ruling powers of each plane may regard the place as their private garden or hunting preserve (readers may recall Philip Jose Farmer's *World of Tiers* series), and may have formed secret societies or alliances to control the use of gates — and ultimately all of the worlds to which they lead. This could form the background for a long-lived campaign. TSR module Q1, *Queen of the Demonweb Pits*, presents a fine example of worlds interconnected by gates. The DM should also decide if there are any limitations upon the summoning of demons, devils, and the like. Characters looking for a way home may well find magic items and scrolls left behind by earlier groups of adventurers which have been abandoned, cached in tombs, caverns, and the like, discovered and put on display in museums, and so on.

Player character tactics

Adventurers, you are strangers in a most dangerous new territory. Avoid pitched battles, and concentrate on concealment, guerrilla ambushes, and weak targets. (Oh yes, and have fun!)

More details? Right, then — stay hidden; find a safe hideaway (deep woods, abandoned barn or warehouse, cave, large storm sewer network, or the like), and keep to it, making occasional forays, mainly at night. Go quietly, try to avoid attention.

To learn what is necessary for further, more effective concealment — local dress, language, and customs, basic knowledge of current events — ambush a hapless motorist or passerby (someone not living locally will not be noticed missing as quickly, and if confronted the party most poses as "travelers from afar" anyway) and *speak with dead* until you know all you need. Pick an important-looking target. Once you have learned to recognize lawmen, soldiers, and "lords" or their equivalents, *charm* them as necessary to maintain your safety. Above all, HIDE.[7]

If you do not, you will probably die (or at least, end your days in a lunatic asylum, unless you are lucky enough to meet an understanding group of AD&D players or SCA members) for communications are far better than the norm at home, and the forces of law are far more powerful. Use lots of cover and try to arrange fights to your liking; hand-to-hand ambushes and the like. None of this Monty-Haul-style facing down the German army?; massed modern weaponry, to put it bluntly, will slaughter you. (Cavaliers will have some problems.)

Bullets can penetrate even the thickest personal armor, and the shock of a single high-velocity round striking a target can kill (DM: Apply this rule for zero-level characters — party men-at-arms, bystanders in the modern setting, and for party beasts of burden, such as mules). To match the awesome punch of modern weaponry you need magic: magic items so that

each party member has some magical defense or attack, and a high-level magic-user or two for the heavy gunning. Coordinating actions so as to maximize a party's "punch" (first-round damage inflicted) is necessary; teamwork is a must.

Protection from normal missiles will be useful against the smaller stuff; *wall of iron* and *wall of stone* will provide protection against small-arms fire, but will shatter under the force of artillery or tank projectiles and explosions equal to the combined force of 12 grenades, doing 1-10 points of shrapnel damage to all within 2″ (save vs. wands do no damage). A *wall of force* provides protection from all missiles and weapon effects, even something as large as an aerial bomb, or a heavy tank or artillery shell. Explosions of sufficient force may destroy the *wall*, however.

If you can prepare before your trip, take scrolls of these along, plus potions of *haste* and — especially — *extra-healing*. They will be needed. Ideally, the non-spell-casters should have a *ring of spell storing* or two among them.

Relevant here is the comment made in an earlier article in this magazine about a magic-user blithely standing in a hail of fire casting *lightning bolts* as though "he were some sort of armored tank." That's essentially what spell-casters are going to have to do, somehow. The magic-user (preferably

with the rest of the party, including several other similarly employed spell-casters) prepares a spell behind the protection of a cube- or dome-shaped *wall of force* (or *prismatic sphere*), and when the protection lends, lets fly with as heavy an attack as he can muster. Note that his targets aren't very stupid, and survivors (if any) will head for the hills the next time such a wall springs into existence and this funny-looking guy in the robes starts chanting and gesturing and brandishing material components. Trained opponents (police SWAT teams, military, and the like) will probably throw as heavy an attack as *they* can muster at the spellcaster and his friends, the moment their defenses are down. The party may well decide to vary their tactics a bit.

Tanks are impervious to anything short of a *disintegrate* spell. They are best fought by killing the crew or forcing them to abandon the vehicle (that is, if you discover in time that this metal monster *has* a crew). *Heat metal* and *lightning bolt* attacks are best for this, although the ultimate is a *fireball* cast in through a gunport, open turret top, etc. Go for the weakest part of the opponent, always: the crew, through the chinks in the armor. Crowds of people can often be defeated by a single *blade barrier* or *reverse gravity*. As for all extended expeditions, lay in a stock of curative spells and scrolls; your DM will ensure that they're needed.

Weaponry

One can spend lifetimes merely listing modern weaponry. Accordingly, this article only contains a very basic weapons table. This is designed to be used in addition to the "Sixguns & Sorcery" table (*DMG*, page 113), and contains representative listings of weapon types. A few comparative examples of specific weapon models are given to facilitate extrapolation for weapon types not covered here, or for more detailed combat. A deliberate attempt has been made both to retain the intent, and to scale things down so as not to stretch game balance too far.

For example, the ".50 aircraft machine gun" (cannon) listed on the table sticks out like a sore thumb; its range and fire rate look a little high. They aren't; I've scaled the latter down by a factor of nearly 100! The rationale for this is that any single target creature will be in the gun sights of an aircraft for only an instant as it strafes, and thus only 20 projectiles have any chance of hitting. (If you balk at rolling 20 "to hit" dice, tough! Go back to the broadswords!) The real reason is that game balance is stretched even at permitting 20 rounds; allow half of them at −1 if you prefer.

I'm sorry if the machine gun is such a fearsome weapon, but I've scaled the darn

Additional Weapons Table

Weapon	Damage[1] S-M	Damage[1] L	Fire rate[2]	Supply[3]	Reloading time[4]	Range S	Range M	Range L	Range modifier[5] S	Range modifier[5] M	Range modifier[5] L	Encumbrance[6]
9mm or .45 automatic	1-8	1-6	4	7 or 8	¼	6	12	18	+ 3	+ 1	0	20
.357 or .38 revolver	1-8	1-6	4	6	1	6	12	18	+ 3	+ 1	0	15-26
Submachine gun	2-8	2-8	20	20-50	¼	7	15	20	+ 2	0	− 1	60-90
Machine gun	2-8	2-12	20	20-50	¼	11	19	35	+ 2	+ 1	0	200-400
.50 aircraft machine gun	2-12	3-18	20	Varies	—	200	1000	2500	0	− 2	− 5	—
Flamethrower	2-12	2-12	1	500	3-6	1	4	9	+ 4	+ 1	0	100-800 (empty-full)
Bazooka	5-30	4-36	1	1	1	10	30	120	0	− 1	− 3	Varies
Mortar, light	4-36	3-24	25	1	0	8-60	110	150	− 2	− 6	− 7	300-500
Mortar, med.	5-40	4-36	15	1	0	500	540	980	− 1	− 5	− 8	1050 (assembled)
Mortar, heavy	6-48	5-40	10	1	0	34-250	700	1200	− 3	− 4	− 8	6000 (assembled)
Grenade	4-10	4-10	1	—	—	2	6	10	0	− 2	− 5	22
Spear gun	2-12	2-12	1	1	—	3	5	8	0	− 2	− 5	50 w/o projectile
Dart gun	1-4	1-2	4	Varies	—	1½	2½	4	0	− 2	− 5	15-20
Blow gun	1	1	3	1	0	1	1½	2	0	− 2	− 5	25
Bola(s)	1-6	1-4	1	—	—	1	2	3	− 1	− 3	− 6	Varies
Boomerang	1-6	1-3	2	—	—	1	2	3	0	− 2	− 5	5
Garrote	1-4	1-2	1	—	—	½	1	—	—	—	—	2
Whip	1-4	1-2	1	—	—	½	1½	—	—	—	—	5
Whip, drover's	1-8	1-6	1	—	—	½	1½	2½	—	—	—	25 +

Notes:

1 — Per projectile (multiple attacks often possible per round; see "Fire rate"). S, M, L refer to size of target creature.

2 — Attacks per round (scaled down for AD&D purposes; not always true-to-life).

3 — Attacks possible (rounds that can be fired before reloading).

4 — In rounds.

5 — Don't forget to also apply hit determination modifiers from the table on page 112 of the *DMG*. Ranges are *up* to the number given (save for mortars; see text). The number given represents units of ten feet. S = short, M = medium, L = long.

6 — In gold pieces.

thing down as much as I can. If you want to be harshly realistic, increase the fire rate to 400-500 projectiles a round. A character won't have a chance. I could even have made the "to hit" accuracy much higher. Any fool can cut across a target at waist level so as to hit it — and characters lying prone for cover can't close to fight or cast spells all that well.

For the purposes of hitting only, modern weapons are considered as artillery, tanks, and aircraft are considered to be equal to an 11th-level fighter. Note that weapon ranges in this table are modified for game balance. Modern game rules will give more accurate ranges. Use "Other Shoulder Arms" (*DMG*, page 113) for modern rifles and carbines, modifying range, damage, and rate of fire as necessary.

Each DM must decide on how to best simulate modern weaponry in AD&D terms. In cases in which rapid combat determinations are required, handle artillery (including howitzers, long-range guns, tanks, aerial-drop bombs, and missiles such as anti-tank and air-to-surface) as doing 6-36 points of shrapnel/shock damage with grenade side effects (see below). Any direct hit by a high-velocity shell will vaporize the target creature, literally blowing it to smithereens, forever gone — or, if a save (vs. dragon breath) is made, will do double damage. Some limpet mine or shaped-charge explosives will also have this effect. Characters may be thrown 1-4" by the blast.

Artillery starts firing at never better than −5 due to firing from instructions, rather than from direct sight. In rare cases in which artillery is firing over open sights, it is too *close* to the target to have a better chance of hitting. Successive shots will fire at +1 better "to hit" until −2 is reached. Heavy armored vehicles such as tanks fire at −2 due to poor visibility, unless they are using infrared viewing systems. Particulars of most modern fighting vehicles can be extrapolated from the information given, with perhaps the aid of a current *Jane's* book.

The TOP SECRET® game rule book contains two tables of use to the DM handling vehicle-related combat situations. Use of the *Path Obstructions Table* (page 37) will cover the use of spells, flasks of oil, caltrops, etc., to delay pursuit. Some armored cars are designed to run even after the tires have been damaged by caltrops, mines, or gunfire. Eventually, the DM will probably find the *Explosive Use Against Stationary Vehicles* chart (page 38) necessary. Add 25% to the dice roll for fireballs, lightning bolts, and other incendiary spells.

For the examination and possible understanding of modern weaponry by AD&D characters, use the charts given on pages 20 and 21 of module S3. Clarke's Axiom ("Any sufficiently advanced technology is indistinguishable from magic") applies. It is suggested that the DM decide on the expertise of AD&D characters with modern weapons following the suggestions under

"Gun Accuracy" (in the conversion table on page 112, *DMG*) and "Artifacts" (*DMG*, page 114).

If the party could gain control of something too powerful for your liking (such as a main battle tank), simply tell them that it's far too complex to learn how to operate unless they can *speak with dead* with the *entire* crew for a week or two, and are willing to practice (hopefully without attracting too much attention). If they persist, let them kill themselves — it won't be difficult! For large-scale tank actions, the reader is referred to a wargaming book such as *Battles With Model Tanks*, by Donald Featherstone and Keith Robertson (London: Macdonald and Jane's, 1979).

DMs must give forethought to the possibility of firearms and explosives being brought back to the "normal" AD&D world by fortunate characters. Will the stuff still work? Can it be duplicated by an alchemist or smith? Should some exotic (and rare) substance (such as jeweler's rouge, in Roger Zelazny's *Amber* novels) of the modern setting serve as the only combustible substance in the AD&D setting? Decisions must be made.

As an alternative to the weapons table given herein, TOP SECRET combat tables can be modified to suit (not advised unless one enjoys juggling figures) or adapt favorite miniatures rules. Note that TOP SECRET fire rates must be drastically scaled down to prevent one policeman with weapons in hand calmly pumping 50 or 60 shots into the hapless AD&D adventurers charging at him.

Additional notes on the weapons listed on the table follow.

9mm or .45 automatic — This is the magazine-loading, self-ejecting, semi-automatic modern handgun seen in most armies (and all spy movies). Magazine sizes ("Supply" column on the table) vary with type as follows: 7 shots — Walther PPK, Colt government, Beretta, Browning 1910 and Cougar; and, 8 shots — Luger, Walther P38, Mauser Model Hsc. One model, the Browning Hi-Power, has a 13-shot magazine. The weight given is an average.

.357 or .38 revolver — Revolvers of this type include all spun-cylinder, manually loaded "western" revolvers, from the .38 snub-nose Police Special and the infamous .357 Magnum to the Colt Peacemaker. British military officers' sidearms manufactured by Smith & Wesson and Webley also fall into this category, as do most police sidearms. All are six-shot models. The average weight is 20 gp; the 15 gp model is the snub-nose and the 26 gp model is for the Magnum.

Submachine gun — Hand-held weapons such as the Thompson "tommy gun," M3 "grease gun," Sten gun, etc. These can be fired one-handed, at a *cumulative* "to hit" penalty of −1 per bullet. Supply varies by type. Some magazine sizes: Thompson, 20 or 50; M3, 30; Uzi, 25; Sterling MK-4, 32. Increase range modifiers by S +4, M +2, L −1 if traversed across

target. Weight also varies by type (refer to TOP SECRET rules or a gun collector's catalog).

Machine gun — This is the light, tripod type of which the 7.62mm is a standard. It has a two-man crew, but can be operated by one man (taking a full round to reload). May be belt-fed or by clip (supply varies by type). Note that some modern sniper rifles will approach the range of this weapon. Increase range modifiers to S +4, M +2, L 0 if fire traversed *across* target.

.50 aircraft machine gun — A bit much, eh? (See foregoing text for why it was included.) A hit from this will throw a character 10-15" and necessitate a system-shock survival roll. Supply varies by type, and is usually upwards of 2,000 rounds (for game purposes, an infinite supply or a predetermined number of strafing runs). Note that the best air-to-ground combat craft is a helicopter gunship, and this can hover and fire, increasing the listed fire rate by putting more projectiles on the target.

Flamethrower — This is the man-pack model; the fuel is carried on a backpack canister. A hit on this canister, even if it is only partially full, will cause an explosion doing 8-64 points of damage (4-32 if save is made) to all within 1", and will destroy the weapon. To determine the reloading time, roll d6 or modify, taking into account dexterity, familiarity with weapon, damage to weapon, visibility, etc. Remember that this weapon will do little or no damage to fire-resistant monsters in the AD&D setting.

Bazooka (and anti-tank missiles) — This listing represents an average infantry anti-tank weapon. Some specific models follow. A "direct hit" (roll of 20) will vaporize any creature as discussed above under "Weaponry," and will hurl any survivors within 1" off their feet, tossing them 1-4" away. (All gear carried will have to make item saving throws.) Passengers and crew within armored vehicles hit by a bazooka must save (vs. dragon breath) or take full weapon (shrapnel) damage. The modern NATO Carl Gustav recoilless gun has a two-man crew, fires six times a round, and can penetrate up to 15¾ inches of armor. It fires anti-tank missiles up to 210", HEAT to 150", HE and smoke to 300", and flares up to 600". The more infamous World War II-era models include: the PIAT (S 7, M 15, L 30) which could penetrate up to four inches of armor; the bazooka (S 14, M 30, L 120), later replaced by the more powerful super-bazooka; and, the German "stovepipe" and its replacement, the one-shot, disposable Panzerfaust, which could penetrate 7" of armor. As an example of the weight of a modern bazooka-type weapon, the M67 LAW (expendable rocket launcher), successor to the super-bazooka, weighs in at 28 gp, and its rocket projectile also weighs 28 gp.

Modern guided infantry anti-tank missiles (such as the U.S. Army *Dragon*) will destroy any armor with a direct hit of 20, vaporize any creature as discussed in the text, and hurl survivors 1-4" (system-shock

survivor rolls apply). Guiding (by control wire or radio) takes time, and so these missiles have a minimum range ($82\frac{1}{2}$″) as well as a maximum range (426″). They are −4 to hit at S, 0 at M, and +2 at L by reason of this visual guidance. There are scores of such weapons available; interested DMs should check out a current *Jane's Weapon Systems* or similar reference.

Mortar (light, medium, heavy) — Mortars are essentially area weapons, having terrible accuracy when used against a point target (such as an individual or small group of characters) and the range modifiers reflect this. (The average error for mortar aiming is 1% of the range at which it is firing.) Mortars have a minimum range due to the limited range of elevations; bombs fly up into the air and take 30 to 45 seconds to come down to earth. Reloading times are given as zero because they are incorporated into the scaled-down fire rate. To reload a mortar, one merely drops the projectile into the open maw of the barrel. Heavy mortars can penetrate all vehicular armor, but aren't very portable. Light mortars can be packed (and operated) by one man.

Some typical mortars: Granatwerfer 34 (the standard German WWII mortar) fires 10 times per round, maximum range of 822″; U.S. 81mm M1 fires 18 times per round, max. range 984″; and, the light 50mm WWII infantry mortar (all major combatants had similar versions of this) fires 30 times per round, max. range 135″ to 162″ (depending on type).

Changing targets takes ½ round. Firing at a moving target, or firing through smoke, dust, or snow, causes a cumulative "to hit" modifier of −1.

Grenade (plus other explosive missiles) — This weapon has nasty side-effects, as described in module S3, page 24. The stated damage on the table is dealt to all creatures within 1″ (save for half damage). All within this blast radius are stunned for 1-4 rounds and deafened for 1-4 turns. Creatures within a 2″ radius are stunned for one round and deafened for 1-4 rounds. If detonated within a container, all within 2″ will suffer 0-9 additional points of damage from shrapnel (roll d10, a roll of 0 meaning no shrapnel hit).

Other grenade-like missiles consist of hurled or projected canisters of smoke (for concealment), tear gas (effects equal to a *stinking cloud*), napalm (burns for four rounds: 2-12/2-8/2-8/1-6, and water won't extinguish), gelignite, nitroglycerine, and other blasting explosives, which can for game purposes be considered to do 6-36 damage plus system shock to all within 2″ (save equals half damage, no system shock). Molotovs and incendiaries are equivalent to the familiar WWII "oil pot."

Spear gun — This weapon uses a mechanical (i.e., spring), compressed-gas, or explosive charge to propel a thin metal rod at a target. The rod or projectile may have a variety of heads, including arrowheads, poisoned or sleep-drugged points, and explosive tips. The weapon will function

underwater, and is typically connected to a projectile by a wire line (of up to 12″ in length). The statistics given are for a heavy-duty weapon; a lighter sporting piece will do 1-6 points damage, and has ranges of S 2, M 4, L 6.

Dart gun — These weapons typically fire from 1-4 projectiles, but different designs may fire only one dart before requiring reloading, or fire a "clip" of up to nine or a dozen darts. Such darts will have a low penetrative power, and will be turned aside by metal plate (e.g., plate mail). They are usually drugged or poisoned, with poison causing unconsciousness or death.

Bola — This weapon consists of two or more balls (of iron, carved wood, or stone) attached by lengths of rope or cord. Its weight therefore varies depending upon how many stones there are (such stones typically weigh 3-5 gp each). When thrown, it causes impact damage plus possible entanglement of the target creature. The chance of entanglement is 80% for S-sized creatures, 60% for M-sized creatures, and 40% for L-sized creatures, modified by +5% for every point of the target's dexterity above 15. Nonavian entangled creatures of all sizes will be able to free themselves in 1-4 rounds. The DM must decide the precise nature of this entanglement in accordance with the prevailing situation and the creatures involved.

Boomerang — Made of wood, ivory, or metal, typically 3-4 feet in length, this throwing weapon is aerodynamically shaped. This shape usually includes a body curve and twist of the body's surfaces. It will *not* return to the thrower; only light, relatively harmless type of boomerangs (doing 1 hp damage plus possible stun if target has less than ½ hit dice) will do that — and then only if they miss their target. When using this type of boomerang, the thrower must concentrate on the returning weapon to catch or avoid being hit by it, and cannot engage in spell-casting or other activities while employing it. (It is suggested that all classes be allowed to use boomerangs.)

Garrote — This thieves' and assassins' weapon is absent from the *Players Handbook*. Although a belt or a length of rope may serve in a pinch, the garrote is typically a length of waxed cord or (in modern times) wire. Most slings will serve admirably as garrotes. A garrote causes constriction damage per round and brings death by strangulation in 3-6 rounds unless cut or loosened. Note that against neckless creatures, where a needed supply of air cannot be constricted, a garrote is useless, doing no damage. Striking from behind allows "to hit" and damage bonuses (*Players Handbook*, page 27). Distances shown are for normal-sized character vs. normal-sized victim. Reach and strength play a part. It is suggested only strengths of 18 + be used to increase damage (1 hp more per 10 percentile points of strength, disregarding points left over), and that for every two points of strength (again, disregarding fractions) the victim is stronger than the attacker, damage

done is decreased by one point.

Note that garrotes may be easily concealed in, or as part of, clothing. It is suggested that magic-users be allowed to learn proficiency in the use of a garrote (employing the waistcord of their robes for this purpose).

[*Both the garrote and the whip (below) were included in Unearthed Arcana's weapons tables. — Editor*]

Whip (including drover's) — Whips vary in size and damage. Statistics given are for a small, single-strand type, 5′ or less in length. More elaborate specimens may have multiple ends, and these may be salted (soaked in brine) or braided around metal spikes, stones, or pieces of glass. These variant weapons will do +1 hp additional damage.

Drover's whips are much longer and heavier weapons, typically of braided, tanned animal hide which has been varnished or tarred, and sometimes exceeding 20′ in length. Carried coiled on the shoulder, they are thrown from this position, and are thus aided by a height advantage over the opponent (e.g., attacker on horseback or atop wagon, target on foot). A strength of 15 or greater is required to wield this weapon, and once thrown, it cannot be lashed back and forth, but must be pulled in and recoiled for another throw (a process which takes one round).

Poisons — Spear guns, dart guns, and blow guns may all use poisoned projectiles. Refer to page 20 of the *DMG* for various poison types. Insinuative Type A is the most common, followed by a "sleep" drug causing unconsciousness for 1-8 turns.

Notes

1 — AD&D game characters, like everyone else, acquire souvenirs and mementoes of their adventures, ranging from awesome artifacts to useless bric-a-brac. These are "Wonders." Tales of derring-do, quaint customs and folklore, and sordid accounts of personal adventures are "Marvels." Most professional adventurers pride themselves on their collections of Marvels and Wonders. (Thanks to writer Alexei Panshin, who said Marvels and Wonders are the basis of a most interesting game in the third Villiers book, *Masque World*, an Ace paperback.)

2 — However, modern technological artifacts and weaponry need not work in the fantasy setting, at the DM's option.

3 — See the AD&D *Rogues Gallery*, pages 28-29, for an encounter table of zero-level characters with some above-average characteristics.

4 — See C. S. Lewis's *Narnia* series and P. J. Farmer's *World of Tiers* series.

5 — An interesting alternate world would be one in which magic is commonplace and handled as a business (such as Poul Anderson's *Operation Chaos*, Robert Heinlein's *Magic, Inc.*, or Randall Garrett's *Lord Darcy* stories). Unwitting parties could well run afoul of local union rules and the like.

6 — Museums and libraries may prove to

be a source of new spells, perhaps ones devised by long-dead magic-users or earlier visitors from other planes.

7 — Illusionists really come into their own here. Comic readers and radio buffs will recall Doctor Strange's, Professor Xavier's, and the Shadow's neat trick of clouding the minds of those around into not seeing the hero, forgetting they saw him, or not seeing him as he really is. Refer to the "Magic in the modern world" section of this article for the effectiveness of magical

illusions on modern men.

8 — From Jim Ward's article in issue #15 of DRAGON Magazine, "Monty and the German High Command." Bazookas and panzerfausts can knock out storm giants, according to this. Um, storm giants tossing boulders, it says. Maybe they were some other species mistakenly identified in the heat of battle.

9 — From "Keeping the magic-user in his place," by Ronald Pehr, in issue #24 of DRAGON Magazine.

10 — To somewhat pacify purists, here are more realistic ranges for some often-used weapons: 9mm and .38 handguns, S 10, M 25, L 80; Lee Enfield, S 50, M 200, L 100. See the shift in power? The DM should settle on ranges and rates of fire that best balance his or her own campaign. Note that some weapons, ranges (e.g., the grenade and boomerang) are markedly increased for characters with exceptional or magically augmented strength.

(From issue #43, November 1980)

THIS IS A SCROLL OF LEARNING DISABILITY. AS YOU READ IT, YOL WILL SMOLWEY BEKAT CONFUSED BY THHR PRINTED WERTZ. YOU BELRXRING ABILIDITRY WILL VANISH LIKE A ARIDZOBA FROST, LEABING OU A MRXPL BANXKOK SNURLY DO! FRRNGO ZAPRR, MANGO ART, XRT, XRT! MANJJRXAMXLI NRI...

PRATT 80

(From issue #29, September 1979)

CANNON FODDER

Hageman

"NOW, DON'T WORRY ABOUT WHAT IT SAYS ON YOUR SHIRT . . .JUST CHARGE WHEN I SAY CHARGE!"

How many coins in a coffer?

Don't forget, all that treasure takes up space

by David F. Godwin

The values and weights of the various coins in the AD&D® game system are reasonably well defined. A coin of any type weighs approximately a tenth of a pound, or 1.6 ounces. But many DMs are continually faced with the problem of the *volume* of a large number of coins. How many coins will fit into a coffer? A chest? If a 20'-square room is filled with piles of copper pieces to an average depth of 1 foot, how much does that amount to? How big is a gold ingot weighing (or worth?) 200 gp? (In the official modules, ingots crop up all the time.) Finally, the ultimate question: How many coins can you cram into a *portable hole?*

To solve these problems, we need to know the *size* of the coins. Nothing is said about the actual size in the AD&D rule books, although the *Players Handbook* says all the coins are "relatively" the same size and weight. (It's a fine point, but does "relatively" mean *equal* with respect to one another, or *approximately* equal?) Having all coins of the same size and weight is very convenient, even necessary, for game purposes, but it is fundamentally an absurd idea. Platinum weighs almost 2½ times as much as copper, so how can coins of equal size weigh the same? And if they weigh the same, how can they be the same size?

The easiest way out is to reiterate that it's only a game and isn't supposed to be totally realistic. What's realistic about fire-breathing dragons or alignment languages? How does *that* accord with the laws of biology and physics? There are quite a few of us out here in the boondocks who feel perfectly comfortable with basilisks, fireballs, illusions, the fact that a spell called "continual light" produces continuous light with nothing intermittent about it, and even the rule that clerics can't use edged weapons, but who balk at the idea of a world where platinum, gold, electrum, silver, and copper all weigh precisely the same for a given volume. But even if we *do* arbitrarily say that all coin metals weigh the same, we are still faced with the volume question.

It would certainly be too complicated to have a different weight for each one of five coin types. Not only would that be playing "house rules poker" and give the DM a nervous breakdown, but the volume problem doesn't come up often enough to make that the easiest solution.

One possible, halfway realistic solution is to say that all coins weigh 0.1 (¹⁄₁₀) lb. each and have a diameter of about 1½ inches (that of a silver dollar), but that the *thickness* varies according to the relative weight of the metal used.

The problem here is that having a different thickness for each coin involves computing the volume occupied by each different type of coin and applying it in each individual case. I have actually done this myself, as described further on in this article, but you would still have some fairly hairy — and unnecessary — calculations to make in order to apply the figures. The different-thickness solution summons the shunned Demon of Needless Complication.

(In the D&D® game, all coins are supposed to be about the size of a half dollar, but even a platinum piece that small would have to be ⅜ inch thick to weigh a tenth of a pound.)

Another easy way out would be to say that the laws of nature as we know them don't apply in the world(s) of AD&D gaming (for example, magic works) and all metals weigh the same. If you're sold on the dollar coin as a standard, with a diameter (1.5 millimeters), you can even say that all coin metals weigh 25% more than platinum, one of the heaviest known substances on earth! (A new Eisenhower dollar weighs 24.59 grams; a tenth of a pound is 45.36 grams.)

One more possible and not altogether reasonable solution is this: In the world of reality, we are faced with the totally unreasonable fact that light always travels at the same speed regardless of how fast you're moving with respect to the source. The light from a distant star strikes the earth with a velocity of about 186,282 miles per second. If the earth happens to be moving toward that star at 50,000 miles per second, the light from that star *still* has a velocity of 186,282 with respect to the earth, not 136,282.

So, in a hypothetical AD&D world, there may be a natural law to the effect that, although coins may be of different sizes or thicknesses, it takes the *same number* of coins to fill a given volume regardless of the type of coin or the volume of any individual coin. We already know that the volume held by a *Leomund's secret chest* varies with the level of the magic-user, regardless of the size of the chest. We can simplify matters considerably by saying that, due to the weird laws of physics in an AD&D universe — which allow magic to work — any container will hold, say, four or five coins per cubic inch, period, regardless of the size, shape, thickness, or volume of any individual coins.

Ah, but the resources of "logic" and "science" are not exhausted yet! Who said that we are dealing with pure metals? A medieval technology, even with the help of dwarves and gnomes, can certainly not attain 100% purity in its refining processes. Therefore, we can easily say that all coin metals in the AD&D world weigh the same *because of impurities*. Even with modern methods, it's possible for refined gold to weigh more than refined platinum, even though pure platinum weighs about 10% more than pure gold. Of course, the impurities would have to be different from those naturally occurring on *this* earth, but we can always postulate substances like adamantite, mithril, or "gygaxite" to account for the fact that all refined metals wind up weighing the same and to average out the 4-to-3 weight difference between pure platinum and pure copper. (I wonder what sort of metal adamantite would be, since diamond weighs only 3½ grams per cubic centimeter. Very light and very hard, obviously, which accounts for its desirability.)

For that matter, there is no particular reason to insist that what we call copper (or silver, gold, etc.) is the same thing as what the inhabitants of a fantasy world call copper. Maybe it's just copper-colored gold. . . .

Okay, so, by whatever method you want to use to explain it, all coins are the same size (diameter *and* thickness) and weigh a tenth of a pound each.

But *what* size is this size, and how many coins will fit into a given volume? The original question.

Since we're saying that all coins weigh the same, a good starting place would be to take the average of the specific gravities of the five pure metals. The specific gravity of a substance is how much it weighs compared to water. The specific gravity of water is 1. If something weighs twice as much as the same volume of water, its specific gravity is 2, and so on. (The specific gravity of diamond is 3.51.) The system is very handy if you use metrics, because a gram is defined as the mass of 1 cubic centimeter (cc) of water under normal conditions. Therefore, the specific gravity of anything is its weight in grams per cubic centimeter. (Mass equals weight for all practical purposes, under normal conditions of temperature, pressure, etc.) The weight in grams of 1 cc (that is, the specific gravity) of each of the five coin metals is: platinum, 21.4; gold, 19.3; electrum (average of gold and silver), 14.1; silver, 10.5; and copper, 8.9. So if a copper ingot weighed 8.9 lbs., a platinum ingot of the same

size would weigh 21.4 lbs. — if you were dealing with pure metals.

The average of all of these, and therefore the working specific gravity of any coin metal in my hypothetical world, is about 15. Things will wind up being simpler in the end, however, if we add a little weight to our argument now and call it 15.66. A tenth of a pound (45.36 grams) of any coin metal, therefore, would have a volume of 2.9 cc or 0.177 cubic inch. If the coin has the same diameter as our dollar coin, then it is 1½ inches (3.81 cm) in diameter. With a volume of 0.177 cubic inch, it would be almost exactly ¹⁄₁₀ inch thick, and you could stack 10 coins to the inch. (Now you know why we used 15.66 for specific gravity instead of 15. The lower figure would give us a thickness of 2.63 millimeters, or about ⁷⁄₆₄ inch — a harder figure to work with on a per-inch basis.)

Of course, 15.66 is 176% of the specific gravity of pure copper, and the copper metal wouldn't be as heavy as this even if it were half platinum, even though an alloy of half copper and half osmium (the heaviest matter on earth, with a specific gravity of 22.5) would be about light. We might note here that a copper piece, if made of pure copper and only as thick as an Eisenhower dollar, would have to be more than 4½ inches in diameter — a tad unwieldy, but that's how much pure copper it takes to weigh 0.1 lb.

The specific gravities of the pure, or nearly pure, metals being what they are, we could more plausibly use the table of impurities to produce a system where 1 gp or 1 pp would weigh 1 gp, a copper or silver piece would weigh ½ gp, and an electrum piece would weigh ¾ gp. But again, this seems like unnecessary complication.

We now have the following data for a standard, typical coin — regardless of metallic composition — in the AD&D game:

Weight: 0.1 lb. — 1.6 ounces — 45.36 grams
Diameter: 1½ inches — 3.81 cm
Thickness: 0.1 inch — 0.254 cm — 2.54 mm
Volume: 0.177 cubic inch — 2.9 cc
Specific gravity: 15.66

Now we can theorize that, because the volume of a coin is 0.177 cubic inch, a box with a volume of 177 cubic inches would hold 1,000 coins. Well, it would hold that much volume of solid metal, but not that many coins. Round coins take up the minimum amount of room if they are neatly stacked. By experiment, loose coins seem to take up about 110% as much room as the same number of stacked coins.

Knowing this, we start by determining the volume of a single coin in a stack. Because of the necessary space between individual stacks, the volume effectively occupied by that coin is the same as for a rectangular solid 1½″ by 1½″ by 0.1″, which comes out to 0.225 cubic inch. With this figure, plus the number of stacks in the container and the height of each stack, you can determine how many coins are in the well-cared-for hoard.

Now let's assume that the treasure is found in loose form; not too many monsters take the trouble to stack their money. Since the figure for a loose coin is 110% of the effective volume of a stacked coin, the effective occupied volume of a coin is 110% of 0.225, or 0.2475 cubic inch. There's nothing hard and fast about the 110% figure, so let's round up a bit and make that 0.25 (¼) cubic inch, and there will very conveniently be four loose coins per cubic inch.

Before considering coffers and other hard-walled containers, let's dispose of backpacks and sacks. By virtue of its volume, a backpack or sack can theoretically contain a *lot* more coins than you can actually carry in it. A backpack, for instance, supposing it to be just the right size for a standard spell book, is 16″ x 12″ x 6″ (1,152 cubic inches), pretty close to the size of a modern camping backpack. Therefore it ought to hold 4,608 loose coins, right? So what happens if you put 460 + pounds of gold in a leather backpack and pick it up (assuming you have a strength of 19 or better)? The straps come off and it comes apart at the seams! The same thing applies to saddlebags, and even more so to sacks. So how many coins can you put in these containers without damaging them? The answers are nowhere to be found in the main AD&D rule books, although it is at least implied in the illustrative example on page 225, Appendix D, of the *DMG* that a large sack will hold 400 gp and a small sack 100 gp. These figures are confirmed by the data in the AD&D Character Folder, which also gives 300 gp for a backpack. Nowhere is anything said about saddlebags beyond price and encumbrance, but it's prob-ably safe to assume 300 gp on the average, like a backpack.

Now, back to the coffer: If the dimensions happen to be 5″ by 7″ by 1½″, or 52½″ cubic inches, the coffer will hold three coin stacks one way and four stacks the other way (assuming a coin diameter of 1½″). That's 12 stacks 1½″ high at 15 coins per stack, or 180 coins. But, since the box is 1½″ deep, you've still got room to make short stacks of coins turned sideways around the edges — three stacks ½″ thick (five coins each) and four stacks 1″ thick (10 coins each) — so that's another 55 coins for a total of 235 coins. There is still an unoc-cupied volume of 1½″ by 1″ by ½″ in the corner, but you can't cram even one more coin in that. This space *will* be occupied if the coins are loose, however, but, at four coins per cubic inch, the coffer will only hold 210 coins if they are loose instead of stacked.

How many coins will fit into a chest 18″ by 30″ by 18″? This one's a little easier: 12 × 20 = 240 stacks, each 18″ high, with no room left over. (If the dimensions are up to you, make the horizontal measurements multiples of 1½″ to avoid the "coffer problem.") The volume is 9720 cubic inches. Right away we see that the chest will hold 43,200 stacked coins or 38,880 loose coins. (Each stack has 180 coins; 180 × 240 = 43,200.)

If a 20′-by-20′ room is filled with copper pieces to an average depth of 1′, how many cp are there? (A similar problem cropped up in a module published in DRAGON Magazine some time ago.) If loose, as there almost certainly will be, there will be 2,764,800 cp, the monetary equivalent of 13,824 gp, almost enough to cover living expenses of ten 7th-level characters for *two whole months* — and it *only* weighs a little over 138 tons!

Furthermore, since that's a volume of 400 cubic feet, you can't even get all those copper pieces into a *portable hole*, which has a vol-ume of only about 283 cubic feet. (Of course, a 10th-level magic-user could *teleport* home with all of it by making only 1,106 round trips.)

Which brings us to the final question: How many coins *can* you put in a portable hole? Such an item is 10′ deep and 6′ in diameter, for a volume of 488,580 cubic inches. We'll consider only loose coins in this case; who's going to stack them? At four coins per cubic inch, the answer is: 1,954,320 coins.

Ingots are another problem altogether, and send us back to spe-cific gravity. Take an ingot that weighs 200 gp. If it is pure gold, it will have a volume of about 28½ cubic inches, which might be 2½″ by 2⁷⁄₈″ by 4″. But that's pure gold. If all coin metals weigh alike, then, under the system developed here, an ingot weighing 200 gp (20 lbs.) would have a volume of about 35¹⁄₃ cubic inches. Remember, 2⅝″ by 2⅝″ by 5⅛″. If the specific gravity of any coin metal is, as we figured, 15.66, then it weighs 15.66 grams per cubic centimeter, which works out to about 0.035 lb./cc or about 0.566 lb. per cubic inch. Dividing 20 lbs. by 0.566 lb./cu. in., we get 35¹⁄₃ cubic inches.

If you want to be exact, you use this method of dividing by 0.566, which is the same as multiplying by 1.767. It would seem to be a heck of a lot simpler, though, just to multiply by 1.75 (1¾) to get an approximate volume, which is all you need anyway. In the case of a 20-lb. ingot, this would result in a volume of 35 cubic inches, ne-glecting only ¹⁄₃ cubic inch — which ain't much when you divide it up between three dimensions.

Just for information, here are some data I've compiled for the system of different coin thicknesses (all diameters are 1½″, all weights 0.1 lb.) for the pure metals. This system is much too compli-cated for game use, but might be of interest to *somebody*. The fig-ures do show how the system of "all coin metals weigh the same due to impurities" as outlined here serves as a workable compromise among the actual pure metals involved.

Metal	Specific gravity	lbs./ cu. in.	Volume of coin		Thickness	
			cc	cu. in.	mm	in.
Platinum	21.40	0.784	2.12	0.129	1.80	0.073
Gold	19.30	0.697	2.35	0.143	2.10	0.081
Silver	10.50	0.376	4.32	0.264	3.80	0.149
Copper	8.90	0.300	5.10	0.311	4.50	0.176
Universal	15.66	0.566	2.90	0.177	2.50	0.100
Dollar	14.40	0.520	1.71	0.104	1.50	0.059

"Universal" is the common coin metal we've worked out in this

article, included for comparison Also included for comparison is "Dollar" — the U.S. Eisenhower dollar coin. Its specific gravity looks pretty good; why not use it? Well, to begin with, it only weighs 24.59 grams (0.054 lbs.), about half as much as we need. Of course, it *could* be used as a base if you want to make it twice as thick, but then we don't get nice, neat little figures like four coins per cubic inch, or 10 coins in a 1˝ stack. (The Eisenhower dollar is, of course, a "clad" coin, not one homogeneous metal.)

Ambitious DMs who really get off on mathematical calculation might conceivably want to use the "different-thickness" method, but

I'll let *them* figure out how many coins in a 1˝ stack and the effective occupied space of a loose coin for each different metal. I confess I have already figured it out and have the data, but I fear the editor would balk at including it. [*You're right, David. — Editor*] Besides, it's *much* easier to say all coins stack 10 to the inch, will occupy a given volume at four coins per cubic inch if loose, and measure 1½˝ in diameter by ⅒˝ thick, and that you multiply by 1.75 to get the volume in cubic inches of a certain number of pounds of solid metal.

But please don't ask me about gems!

What do you call a 25th-level wizard?
Whatever he wants!

by Brian Blume

From #21, November 1978

Is your D&D® game (or whatever role-playing game you play) lacking that certain something? Are your player characters duly impressed when they encounter the local wizard? Below is a do-it-yourself titles kit which is guaranteed to impress any player with the splendor and might of your player and non-player characters.

Simply consult the following chart. Choose one item each from columns one, two, four, and five; insert the person's name; add one item each from columns six and seven; and perhaps add a few descriptive words. (Words in parentheses are optional, or should only be used when it sounds right to do so.) For example, consider

Rogor, the 20th-level paladin. His title might be The Captain General, His All-Triumphant Magnificence, The Duke Rogor, The Colossal, Destroyer of Evil.

It is also possible to delete certain columns and embellish others. For example, delete columns one and five, and embellish columns three and seven. Thus, we have His Most Glorious, Sublime, Superior Excellency, Rogor the Splendid, Victor of the Fields of Kor, Slaughterer of the Minions of Evil, and Lion of Mondra. Let your imagination run wild.

1 (The . . .)	2	3		4		5
Lord/Lady Protector,	His	Sage	Puissant	Illustriousness,	Grandeur,	Crown Prince/Princess . . .
Marshall,	Her	Omnipotent	Excellent	Immensity,	Splendor,	King/Queen . . .
General,	(Most)	Supreme	Eminent	Sagacity,	Sufficiency,	Duke/Duchess . . .
Admiral,	Ever	Glorious	Illustrious	Puissance,	Grace,	Archduke/Archduchess . . .
Viceroy,	(All)	Majestic	Sublime	Omnipotence,	Honor,	Marquis/Marquesa . . .
Chancellor,		Brilliant	Radiant	Potency,	Munificence,	Grand Duke/Duchess . . .
Chamberlain,		Grand	Splendid	Greatness,	Magnificence,	Earl . . .
Lord/Lady Mayor,		Munificent	Magnificent	Excellency,	Highness,	Count/Countess . . .
Captain,		Noble	Superior	Supremacy,	Piety,	Viscount . . .
Governor,		Peerless	Matchless	Eminence,	Lordship,	Baron/Baroness . . .
Captain General,		Incomparable	Devout	Majesty,	Ladyship,	Baronet . . .
Guildmaster,		Renowned	August	Sublimity,	Worship,	Sir/Madame . . .
Commander,		Heroic	Eternal	Brilliancy,	Almightiness,	Emperor/Empress . . .
Overlord,		Stupendous	Amazing	Radiance,	Suzerain,	Lord/Lady . . .
Master,		Astonishing	Chivalrous	Primacy,	Patron,	Prince/Princess . . .

6 (The . . .)				7		
Incomparable,	Brilliant,	Proud,	Deadly,	Slaughter of . . .		Destroyer of . . .
Distinguished,	August,	Heroic,	Crusader,	Strength of . . .		Lord/Lady of . . .
Superior,	Elite,	Superlative,	Belligerent,	Protector of . . .		Vanquisher of . . .
Greater,	Exalted,	Grave,	Chivalrous,	Subduer of . . .		Enslaver of . . .
Peerless,	Honorable,	Unsurpassed,	Just,	Subjugator of . . .		Hero of . . .
Matchless,	Marvelous,	Miraculous,	Contentious,	Commander of . . .		Lion of . . .
Devout,	Wondrous,	Mysterious,	Perverse,	Queller of . . .		Keeper of . . .
Salient,	Stupendous,	Amazing,	Unyielding,	Silencer of . . .		Guardian of . . .
Loyal,	Astounding,	Colossal,	Resolute,	Slayer of . . .		Scourge of . . .
Insurgent,	Adroit,	Adept,	Determined,	Victor over . . .		Terror of . . .
Renown,	Deft,	Clever,	Relentless,	Butcher of . . .		Horror of . . .
Glorious,	Shrewd,	Powerful,	Triumphant,	Dominator of . . .		Light of . . .
Illustrious,	Irresistible,	Invincible,	Usurper,	Immolator of . . .		Sword of . . .
Honorable,	Invulnerable,	Bloodletter,	Terrible,	Champion of . . .		Hammer of . . .
Splendid,	Strangler,	Poisoner,	Majestic,	Victor over . . .		Scythe of . . .

Ruins

Rotted and risky, but rewarding

by Arn Ashleigh Parker

"Rough: Includes ruins within up to five miles of the party." So reads the *Dungeon Masters Guide*. And *that* is virtually all the AD&D® game rules say about the outdoor counterpart to the deep, dark dungeon.

The question arises: Why should a Dungeon Master include ruins in a campaign? Dungeons, one may point out, present a place for characters to encounter the fantastic creatures of the AD&D game. I concede that the dungeon provides a medium for the Dungeon Master to present tricks, traps, and monsters, but its scope is still limited. Many DMs and players alike scoff at the possibilities of seeing dragons and similar flight-capable creatures inhabiting underground labyrinths. Therefore, the contention can also be made that ruins are as integral as dungeons to a well-balanced game.

The differences between a dungeon and a razed city are not world-shattering, but they are significant. The druid character class, for instance, has much more potential in an outdoor setting such as a ruin. A ruin may once have had a park that would, in all likelihood, still thrive. This park, aside from presenting many opportunities for DM expansion, is ideal for the druid's operations. Other differences include weather, alleys, and visibility. Storms, cold winds, or heat waves could change the adventuring situation. For instance, bundling up with warm bulky furs because of freezing winds may reduce the dexterity or "to hit" figures of a character. [*See DRAGON® #108, "The role of nature." — Editor*]

Another unique feature of ruins is the alley, which connects main streets and side streets. This gives the party much more maneuverability, so they may not be so channeled to a certain place as easily as in a dungeon. Also, the alley can be a place of adventure and danger for a character. Imagine a fighter walking through a narrow alley, enshrouded by the shadows of buildings. Suddenly, he sees a tall, shadow-covered figure ten feet ahead. As the thing moves closer, he sees the sickly green color of troll skin. . . .

A final important feature of ruins is visibility. The use of torches is rare, since parties rarely enter a devastated city in the evening or nighttime. Further, most (if not all) buildings have windows, and light usually enters through these portals. Of course, there are many ways to combat this "all-seeing character" problem. Many windows could be boarded up or covered with a shade, cutting off light. Outside, however, the problem is much more complex. If no other logical means is apparent, a desperate DM could alter the normal weather patterns. A low, dense fog could curtail the range of characters' vision, or dense clouds could obscure the sun. Even though this can be done, weather patterns should only be allowed to change normally; a fog doesn't spring up every time a character sticks his head out a door.

After deciding to include ruins in his campaign, the DM must then draw out the destroyed city. Graph paper with one centimeter equal to ten squares (each small square equal to ten game yards), is suitable for a large city of, say, 10,000 people. A smaller scale should probably not be used unless the city is, in fact, a town. If this is the case, then the town should be completely designed by the DM, and the charts in this article should be ignored — they are only for use in large cities. Note that, despite the drawing's scale, the party should only be allowed to move 10′ for each 1″ of movement rate, and in all other respects as well the party should use dungeon scale (*i.e.*, each 1″ of spell range equals 10 scale feet, etc.).

The large destroyed city would include several potentially dangerous places — graveyards, for instance. A cemetery could be in the center of the city, at the outer wall, or even outside the city in a special cordoned-off burial place. As all DMs know, the tombs of the dead often present exciting AD&D scenarios.

Ruins should also contain a centralized government building. A palace could serve for a monarchic government, while a large conference room, with adjoining chambers, could serve for an oligarchic administration. This central building could presently be the center of some great malevolent force, or perhaps it could be controlled by a monster like a demented ogre mage.

After the DM has finished drawing the destroyed city, he may notice a couple of ways players may cause trouble. For instance, an *invisible* thief may climb a wall; then, with paper and pencil, he may proceed to map out the perimeter of the city. Actions like this can, especially in a large city, cause a DM quite a bit of consternation. There are ways to deal with this situation, however. First, as with all problems of this nature, the DM may disallow it on the basis of game logic, which may include reasons such as: It would take too much time; it would give too much information away too easily; or, it would make an otherwise enjoyable game into a boring exercise in reality.

A second way to deal with this situation, if the playing session is almost over, would be to end the session. When the game resumes, the DM may give out a map of the perimeter of the city to the party, giving the map-making thief credit for mapping the perimeter but without marking the entire playing group wait during the tedious process. A DM-provided map should include some deliberate errors, to approximate mistakes the character(s) might make if they developed the map themselves. When the map of the perimeter is drawn, the DM should not also map any inside part of the city just because players claim they can see down the roads into the interior. It is advised the DM tell the players that the roads, even if they extend straight into the center of the city, only enables vision from the perimeter for 100 yards into the ruins. The shadows of buildings, the DM may say, prevents discerning what lies within the middle of the city.

Monsters and lairs

The primary threat to characters in a ruined city will *not* come from wandering monsters that may be encountered while on patrol, but from monsters who have *lairs* inside the city. But how does a DM choose which monsters inhabit certain parts of his ruins? First the DM should systematically go through the map of his city, determining which buildings are the lairs of monsters. The DM should not, at this time, determine what specific type of building comprises each monster's lair. This should be done when the characters are actually aware that it is some creature's lair, or at any other time when the party happens to be interested in knowing the building's type. To do otherwise would take too much time for most DMs (assuming that there are 30 or more lairs in an average-sized ruin). Note that an avian creature's lair might be assumed to be an unusual personal residence, while the flying creature is so small that its movement within a normal building is not impeded by the building's internal and external features.

The kind of creatures that should be allowed to have a lair within a razed city can be determined randomly using the *DMG*, choosing the wandering monster chart appropriate to the prevailing conditions and then cross-indexing with the "rough terrain" category. However, this random determination should not be allowed to be absolute in its decision. Some creatures cannot lair in buildings, either because they *have* no lair (*e.g.*, wild dogs) or perhaps because

they are incompatible with the surrounding terrain (e.g., white dragon in subtropical climate). It might be that the number of creatures encountered is too great a number (e.g., a tribe of 300 orcs in a small town); the numbers encountered can be reduced. A final rule which may be observed, to offset the fact that the party must often face a large number of creatures in lairs, is that most lairs must have treasure. This rule does not exclude monsters that do not derive treasure from lairing in razed cities, an example being the lion.

Table I
Monsters that may lair within ruins

Ankheg	Hippogriff	Rakshasa
Ant, Giant	Hydras(all)	Remorhaz
Ape, Carnivorous	Intellect Devourer	Roc
Basilisk	Jackalwere	Rust Monster
Beetle, Giant Boring	Jaguar	Salamander
Beholder	Ki-rin	Satyr
Blink Dog	Lamia	Scorpion, Giant
Brownie	Lammasu	Shadow
Bugbear	Leprechaun	Shambling Mound
Carrion Crawler	Leucrotta	Shedu
Catoblepas	Lich	Slithering Tracker
Centaur	Lizard, Fire	Spectre
Chimera	Lizard, Minotaur	Sphinxes (all)
Cockatrice	Lizard Man	Spiders (all)
Couatl	Lurker Above	Stirge
Displacer Beast	Lycanthropes(all)	Su-Monster
Doppleganger	Lynx, Giant	Sylph
Dragons(all)	Manticore	Titan
Dragonne	Medusa	Toad, Ice
Dryad	Minotaur	Trapper
Eagle, Giant	Mummy	Troll
Gargoyle	Naga, Guardian	Vampire
Ghast	Naga, Spirit	Wasp, Giant
Ghost	Nymph	Water Weird
Ghoul	Ogre	Weasel, Giant
Giants(all)	Ogre Mage	Wight
Gorgon	Owl, Giant	Will-o-Wisp
Griffon	Owlbear	Wolf, Winter
Groaning Spirit	Peryton	Wraith
Harpy	Pseudo-dragon	Wyvern
Hell Hound	Purple Worm	Yeti

Buildings

A ruined city is made up of buildings: those still standing and those that have been leveled. Those buildings that have been razed are of no particular use to the DM, but this is not true of the buildings that still stand. They are very useful. Below are some buildings that may be located within ruins.

Table II
Building types

d%	Building type	d%	Building type
01	Alchemist	47	Jeweler-gemcutter
02-05	Armorer	48-50	Leatherworker
06	Bank	51-53	Library
07-09	Barber	54-56	Liquor
10-13	Bowyer	57-58	Metal worker
14	Brothel*	59-60	Nursery
15-17	Butcher	61-70	Private Residence
18-19	Candlemaker	71-74	Produce
20-22	Church	75	Sage
23	Ceramic molder	76-78	School
24-26	Clothier	79	Sheriff
27	Furniture	80	Specialty shop
28-32	General store	81-83	Stable
33	Glassblower	84-87	Swordsmith
34-35	Hardware	88-95	Tavern
36	Herbalist	96	Theater
37-41	Hospital	97-00	Weaponer
42-46	Hotel	* — Or roll again.	

When the characters investigate a building containing a monster, the DM should determine the building type using the chart above. Then, using the following explanations, the DM should describe the building to the group and await their reactions. The monsters, of course, behave as the DM sees fit; accordingly, no restrictions are placed on their behavior.

Definition of terms

The following is a list of terms used repeatedly in the description of building types.

Term	Definition
Poison	Type A, Ingestive
Books	See DRAGON issue #37, "Libraries" by Colleen A. Bishop, but ignore the magical tomes, books, and scrolls.
Webs	Webs may be either thin and go unnoticed, or thick, so that they thoroughly obscure vision. To determine the thickness of a web, roll d4: A result of 1 means total visibility, 2 means that part of the room are obscure, 3 means that most of the room is covered with webs, and 4 means that the room is encased in webs. The webs can be easily pushed out of the way or burned.
Nothing of value	This term, while meaning that things of monetary value do not exist within a room, does not necessarily indicate that there is nothing useful inside a room. Forks, knives, furs, and pillows are just a few examples of the objects that may be found in a building.

Description of building types

In some of the following descriptions of building types, it is recommended that certain treasures be placed at designated locations within a building. These recommendations are meant only for buildings which serve as the lair of a monster and, therefore, they should be ignored under other circumstances (i.e., when players investigate a building containing no monster), but any dangerous magic items should be treated (poison included). However, if the players have access to this article (and thus would know that if the building contains no monster's lair, no liquid substance could be of a beneficial nature), the DM may wish to leave certain beneficial potions within the building. It is important that the DM realize that any magic items recommended in the listings below are in addition to those that may be part of a monster's hoard.

[Note that the following are only examples, not rules for laying out buildings. A bank can be on one story tall, and an alchemist could live in a grass hut on the edge of town. Be creative and don't be compelled to stick to these as rules. — Editor]

Alchemist: The residence in which an alchemist would once have lived is a round tower (90%) or a normal building (10%). The height of a normal building is usually three stories, but the height of a tower is 4-6 stories. Normally, the tower has less floor space than a normal building and, thus, the structures' volumes are approximately equal.

The first story of an alchemist's residence or workshop is usually barren of furnishings, save for a series of small braziers that typically line the walls. They were, at one time, used to burn incense. There should also be a torch holder somewhere on the walls. A spiral staircase (in the center of the room if a tower, or in the corner of the room if a normal building) leads to the second story.

The second story should contain shelves, overturned tables, chairs, broken vases, shattered urns, and a single window (two if in a normal building). There is a 10% chance that there is a small cubbyhole set into the wall that contains 1-6 potions. There is a 25% chance that any given potion is poison, and a 75% chance that it is a beneficial magical potion (use the random determination chart in the DMG). The spiral staircase should continue upward into the chambers above.

The third floor is the living chambers of the alchemist. A sundered bed, dresser, and desk should be found here, as well as shelves

of books (if within a normal building). If the residence is a tower, then the fourth and fifth stories contain books. The sixth story, if it exists, should contain 1-10 flasks, 2-7 small plates, a basin, 1-4 jugs, two measuring devices, and two tables (upon which sit the furnishings listed above). There is a 25% chance that all of the materials found in such a place are broken and useless, and only a 10% chance of successfully locating a particular (undamaged) item being sought, if it is determined that some undamaged items do exist on the premises.

Armorer: The abode of an armorer ranges from one to two stories in height. In the case of a one-story building, 80% of the floor space should be partitioned off for a work area. The majority of this space is taken up by the armorer's tools, now broken and useless. An anvil (or two), hammers, a bellows, a forge (once used for softening metals), and tongs should be just a few of the things still within the room. There should also be some rusted suits of mail. Any character with the secondary skill of *armorer* may, at the DM's discretion, find a sufficient number of usable tools to repair any damage in the armor worn by members of the group. The section of the room that has been partitioned off from the main room is the living quarters of the armorer. These two rooms may be joined by a door or by an open hall. The armorer's quarters may have been looted, so nothing of value may be found within it.

If the building is two stories in height, then the first story is not partitioned off and consists entirely of the tools of the armorer (in this case there *will* be two anvils and, perhaps, two forges). Somewhere in the room, there should be a staircase leading to the second story. The second story is the former armorer's quarters. There may be a set of magical mail within this room (10% chance). If a set of magical mail exists, then there is a 50% chance it is *ring mail + 1* and a 50% chance it is *ring mail of vulnerability* (tests as + 1 armor, actually acts as − 2; see *plate mail of vulnerability, DMG*, page 165). Other than the magical mail that may be within the room, nothing of value remains inside the upper story.

Bank: Banks range from 2-6 (½d10 + 1) stories in height. The first story should contain desks, chairs, tables, and countertops. This is where the normal business of the bank took place. There should be a spiral staircase at the back of the room that leads to the upper stories. The second story, and every additional story thereafter (up to the maximum number determined by the dice), contains a huge vault. Each vault has a chance of still being intact (varying with how high it is from ground level) and, if it is, there is an additional chance that it contains coins, according to the following table:

Height in stories	Vault intact %	Copper* (% & #)	Silver* (% & #)	Gold* (% & #)
2	40%	80%, 10,000	30%, 1,000	0%, 0
3	50%	70%, 8,000	30%, 1,200	10%, 300
4	60%	60%, 6,000	40%, 1,500	50%, 500
5	80%	20%, 2,000	60%, 4,000	80%, 1,000
6	90%	0%, 0	60%, 6,000	95%, 4,000

* — If the vault is intact — and, of course, if the bank is a monster's lair — then there is a chance (as listed) that it will contain the specified number of coins of each type.

All vaults are extremely hard to open, some of them being virtually impregnable (thus, their high chance of being intact even amidst the ruins). The chance for a given thief to open the lock on a bank vault is computed by multiplying the height of the vault (in stories) by 20, and subtracting that number from the thief's normal percentage chance to open a lock. Thus, a 17th-level dwarven thief with a dexterity of 17, who would have an adjusted open-locks chance of 119% for normal locks, has only a 49% chance of cracking a third-story vault, and *no* chance to open a vault on the sixth story, because the adjustment for the vault's height (6 × 20 = 120) is greater than 119. This adjustment accounts for the greater degree of ruin on upper floors of old buildings.

Vaults withstand damage in structural points equal to their height in stories: *Knock* spells work well on vault doors.

Barber: The barbershop of old was a simple place, often one-storied and modestly furnished. Nothing of value should remain within the building, but there should be a few chairs and washbasins still inside the structure.

Bowyer: A bowyer's workshop is usually two or three stories in height. The first story was once the workshop of the bowyer. It should contain rotted wood, partially finished bows and arrows, and a completed bow or two. The condition of the completed bows depends on where they have been stored; if left out in the open, they are surely ruined, but if stored behind a glass case, they may be in good condition. The DM must decide, depending on the weapon needs of the adventuring group, whether the bows are ruined or not. There should be a staircase leading to the second story.

The second story was, at one time, the residence of the bowyer. It should be in decent condition, but nothing of value should be found within the lodging. However, the third floor, if it exists, could prove very useful to the characters, if it was once the storage house for the bowyer. As the characters search the trap door to the third floor, they should see lots of webs covering a storehouse of 20-120 arrows in good condition and 1-6 usable (unstrung) bows. There should be an additional number of bows and arrows that are rotted and useless, equal to 100% and 200% respectively, of the number of usable items found.

Brothel: If the city that is now in ruins had a moral fabric that would not permit a building of this sort to exist within its boundaries, then the DM may either reroll on the building type table or limit to one the number of brothels found within the ruins.

A brothel ranges from 2-7 stories in height. The first floor contains a reception area with once beautiful tapestries and cushions that are now rotted and moldy) and a kitchen area. The upper stories contain bedrooms, often covered with webs. There is a 10% chance for each room that there is a secret cubbyhole (detected as a secret passage) containing either (25%) a potion or (75%) 10-60 gold pieces. The potion is poison (25%) or a random potion from the *DMG* (75%). Nothing else of value should be found within the brothel.

Butcher: A butcher shop is often one story in height, and it contains a food locker as well as a table for cutting meat. A counter divides the front of the interior from the back. The back of the room contains the table and butcher knives (now rusted) that were once used in cutting meat. A small food locker, once kept cold by blocks of ice, also lies in the back of the room. Usually, nothing else of value is within the building.

Candlemaker: A candlemaker's shop is one (75%) or two (25%) stories in height. The first story contains a counter, as do most shops, separating the room into two parts. The back part of the room contains instruments, unmelted wax, tables, tallow, and wood to make incense, torches, and, of course, candles. There may be from 1-10 usable pieces of incense, torches, or candles within the room, and there may also be a great number of potentially usable items yet unfinished. The second story, if it exists, is the living quarters of the candlemaker, but nothing of value will be found within it.

Church: A church is large and impressive; its height should be from 7-10 stories. The first story was once the site of church ceremonies, and this should be reflected in the grandeur of its windows and woodworks. A few of the windows may still be unbroken, and much of the woodwork should still show its one-time beauty. The double doors to the church should open onto rows of pews facing an altar. A podium may rest upon the altar, and there may be a golden candelabra (10% chance), valued at 500 gold pieces, yet within the room (lying on a table near the altar). The candelabra may be cursed (25% chance) to shock any character for 1-8 points of damage each round it is touched or held (a *remove curse* will cancel the curse, but not restore lost hit points). There may also be 1-6 silver holy symbols beside the altar (25% chance). There will be a door to the right of the altar, against the back wall of the church, that leads to both a conference chamber (which the church once used

to coordinate its activities) and a stairway to the upper floors.

The second through sixth stories contain the rooms that were once the living quarters of the clergymen, but they will now be empty save for the room's furniture. There is a 10% chance (for each story containing living quarters) that 100 gold pieces will be found, providing that the players spend one hour searching each story (if there are monsters within the church, then this searching would give them the opportunity to strike at the group when the characters are least prepared).

The seventh through tenth stories were once storage places for the magic items gathered and made by the church. A series of spiral staircases should provide the means of ascent, each staircase ending at the door to the next story. Each door should have a *glyph of warding* on it (which one is the DM's decision). Every floor that exists has a chance to contain magic items, of the sort usable by clerics, according to the following table:

Height in stories	Chance for magic items	Type of magic item and #
7	10%	Potions (1-8)
8	15%	Shields (1-2)
9	20%	Weapons (1-4)
10	25%	Miscellaneous (1-2)

There is an 80% chance that any magic item found is of a harmful (to the owner/finder) nature, with specifics to be determined by the DM, using the *DMG*, and a 20% chance that each item is of a beneficial nature. The DM should not place magical maces or shields of greater than +1 enchantment within the church, because the clerics would not have left them behind when they left the city. (The rationale for any magic items being present at all is that the church had so many possessions to take that *something* had to be left behind.) There may be a bell located at the top of the church, reachable only by ascending to the top story.

Ceramic molder: The height of a ceramic molder's building is one to two stories (50% chance of each). The first story is the workshop, containing the remnants of tools, a potter's wheel, and ceramic molds. The second story, if it exists, was once the living quarters of the owner. Neither the first nor second stories have anything of value.

Clothier: The height of a clothier's building ranges from 2-4 stories. The first story contains empty racks of clothes, webs, and un-curtained dressing booths. Nothing of value exists within the room. The upper stories each have 25% chance of containing some clothes that are in good condition, and the upper levels will also contain a great amount of rotted and moth-eaten clothes. There are webs within the upper stories, and nothing else of value will be found.

Furniture: A furniture building is often two stories in height. The first story contains many (10-40, depending on the floor area of the building) different kinds of chairs, couches, tables, and desks, as well as a few other smaller pieces of furniture. Most all these finely carved pieces of furniture are rotted and useless, but a very few of them (10% of the total number of items in the room) may be in good condition. Their monetary value, if any, should be determined by the DM. A nearly vertical flight of stairs should lead to a trap door which opens on to the floor of the second story. The second story should contain all kinds of furniture, but all of it is decayed and worthless. Webs are present on both stories, and nothing (except what has already been mentioned) is of any value.

General store: General stores are usually one story in height. The building should contain a sampling of all kinds of normally saleable things, but most of them will have been rotted, rusted, or decayed away long ago. The building will contain webs, and nothing of value will be found within the store.

Glassblower: A glassblower's shop is often one story in height. It should contain a furnace, great amounts of unformed glass, tubes, and tools with which to form the glass. Broken glass should be found

all about the room, but there may also be (at the DM's discretion) a couple of unshattered sheets of glass. Nothing else found will be of value.

Hardware: A hardware store is usually one story in height. It should contain several shelves of nuts, bolts, screws, hammers, saws, and assorted kinds of equipment. Most of these tools will be rusted and worthless, but despite their loss of monetary value, many of them may still be able to perform their functions.

Herbalist: A herb shop is usually two stories in height. The first floor contains, as might be expected, bottles of herbs sitting upon shelves. Many of the bottles will be broken, but there is a 25% chance for any given herb that the shop contains an unbroken container with a potent amount of the herb in question. The second story once contained the living quarters of the herbalist, but it, as well as most of the first story, now contains nothing of value. Webs can be found throughout both stories.

Hospital: The height of a hospital ranges from 2-5 stories. All of the floors contain small rooms within which patients were once housed (two ore more cots in each room). Many different kinds of doctors' instruments should be able to be found within dressers that are located upon every story, but any medicines that may once have existed will have long since turned bad (85% chance that any medicine sampled is poison). Nothing of value will be found within the hospital.

Hotel: The height of a hotel ranges from 3-10 stories. The first story should contain a large living room, a kitchen, and a dining hall. Many things of interest may remain within the rooms of the first floor, but nothing of value will be able to be found. All of the upper stories contain rooms, now in very bad condition. There may be a pack of giant rats in the upper levels of the building, if the DM so desires. With the exception of a few pieces of unrotted furniture, nothing of value should be found inside the rooms of the upper stories.

Jeweler-gemcutter: A jeweler's store is often two stories in height. The first story should contain a work table, many delicate tools, display cabinets (now empty but once filled with jewelry), a few chairs, a once-luxurious (but now moth-eaten) couch, and a flight of stairs leading to the second story. Aside from what has already been mentioned, there should be nothing of any value on the first floor.

The second story was once the living quarters of the jeweler. It should contain a bed, a dresser, and several shelves of books. The room should also contain a large safe. The lock to the safe, being a complex combination lock, should take one turn for a thief to attempt to *open locks* upon it. It is recommended that there be a 10% chance for the safe to contain 1-6 gems (randomly determined according to the *DMG*). Webs should fill both stories, and nothing of value except for the safe should be found on the second floor of the building.

Leatherworker: A leatherworker's shop is usually one story in height. It should contain several piles of rotted leather, a couple of chairs and tables, and the necessary tools for shaping leather.

Library: The height of a library ranges from 2-4 stories. Webs are prevalent throughout the building, and many of the books are in disarray. All of the stories contain many shelves of books, but the first floor also contains a catalog of the books in the library. Any character may use the catalog to look up a book on a certain subject, but the amount of time (in minutes) to find a listing in the catalog is equal to the character's intelligence subtracted from 20. After a book's approximate location is determined by use of the catalog, the character still must search the proper shelf to find it. At this point, the DM should roll to see of the book has been lost or stolen (35% chance of its not being on the premises), or misplaced (15% chance of being in the library, but not where the catalog indicates). Except for locating it by magical means, a book misplaced within the library is as good as lost. The kind of books that may be located within the

library is for the DM to decide, but it is recommended that nothing pertaining to monsters' lairs, and the like, be allowed (*i.e.*, only topics of a "normal" nature should be permitted to be found on a library's shelves). Aside from its books, the library contains nothing of value. Books may, of course, be damaged beyond legibility by animals and the elements.

Liquor: A liquor store is usually one story in height. It should contain several shelves laden with bottles of liquor and other beverages, some bottles broken or opened and some intact. Bottles of liquid that are still intact, and properly sealed, will be drinkable. Otherwise, the liquid will act as a quarter-strength poison. Nothing of value (save for the liquor) should be found within the store.

Metal worker: A metal worker's building is often one story in height. Except for an anvil, a few hammers, a furnace, a couple of sheets of metal, and some half-finished metal items, the building contains nothing of value.

Nursery: A nursery is often one story in height. It is usually a greenhouse (90%), but occasionally it is a stone building with many windows (10%). In all likelihood (90%), the plants within the nursery will have long since died, but it is possible (10%) that some of the plants will have survived by extending their roots into the ground. If the plants have survived, the entire nursery will be filled with greenery, but if the plants have died, nothing but webs will fill the room. Nothing of value should be found within the building.

Private residence: Private residences are divided into normal residences (90%) and unusual residences (10%). Normal private

Merchant: A merchant's abode ranges from 5-10 stories in height and may be made of stone. It should have either a terrace on every floor higher than the first, or several circular platforms that extend out from the sides of the building, supported by stone beams (each angled at twenty degrees up from the horizontal). The stone beams are structurally sound, and each one of them can take one full structural point in damage before collapsing to the ground. Each stone beam also serves as a flight of stairs to its circular platform (steps have been cut into its skyward face). The circular platforms are formed of stone, and they range from 5′-20′ in diameter. A 3′-high wall of stone surrounds each platform everywhere but where the stairs provide entry onto the platform.

The first four stories of the building are the living quarters of the merchant. They should contain lavishly furnished suites, a large library, and several washrooms. The upper stories contain many well decorated rooms, a large dining hall, a kitchen, and another extensive library. The upper stories once served as the location for many parties and social functions (the key to success for any merchant). There may be, at the DM's discretion, a total of 2,000 gold pieces worth of antiques within the building (in the form of hard-to-move objects, as with the politician's home).

Produce: A produce "building" is not really a building at all, but an outdoor marketplace. Several large stalls should form the perimeter of the marketplace; within the area nearly entirely surrounded by the large stalls, there should be an additional number of smaller stalls. All of these stalls once held fresh vegetables and fruits, but these natural foods have long since rotted away. Nothing of value should remain near or around the marketplace. A produce "building" should only be allowed to be the lair of monsters that are with

they must join hands before the power, spell, or device goes into effect. Group members will be transferred at once along with all of their equipment (magical or non-magical) to another plane; if going to an Outer Plane, the group passes through the Astral Plane in mere moments. However, these travel modes may simply take a group to astral space if this is desired. Once the desired plane has been reached, the power, spell, or device transporting the group ceases to work, and the group may split up and move about as desired. Leaving the plane is done in the same manner used to arrive at the plane.

Once on the Astral Plane, the adventurers find themselves beside a silver color pool (as noted above). When any color pool is encountered, however, it will respond to the mental commands of the most intelligent person within 30′ of it. If two or more equally intelligent persons are present and concentrating on viewing through the color pool, it will produce no images.

Likewise, any individual who wishes to enter another plane need only move next to the color pool and mentally will it to be so. He may then pass through the color pool and reappear on the other side, in the area which he was viewing. Only one being per round may pass through a color pool in this manner. Note that a return trip is not always possible, as the interface with the other plane may well be one-way (and usually is).

It is obviously possible for someone to strand characters on other planes using any of these travel modes. Stranded characters will not be able to leave their plane unless given assistance, or unless they possess the spells, powers, or devices to help them leave. No silver cords are formed using any of these travel modes; the characters' bodies have been brought along.

Encounter checks and the Psychic Wind

When travelers are using either *astral projection* or *astral spell*, several encounter checks may be rolled during the journey. One is made immediately at the start of the voyage, to see if any astral beings are adjacent to the color pool into which the characters entered astral space (roll 1 on a d10). Another encounter check could be made at this point, if the player characters use the silver pool to spy upon their own plane and encounter certain Prime Material monsters (like the catoblepas) which can project magical attacks onto the Astral Plane (if any such beasts are in the area; assume 1 chance in 20 unless detailed otherwise).

Other encounter checks are made for every four hours that the travelers spend on the Astral Plane (roll 1 on a d20; no Prime Material monsters like the medusae or catoblepas will be encountered around here), and checks for more encounters are made whenever the group comes across a color pool leading to another plane (1 on a

d10; multiple color pools may be encountered if rolled, producing more rolls for other encounters). If a place on the Prime Material Plane is viewed through a color pool, then medusae and the like may again be met, if any exist on that plane. The length of time spent on the Astral Plane is always made relative to the time that the group spends away from the Prime Material Plane (more easily measured for those who are astrally projecting).

Characters using any other form of planar travel will undergo one encounter check upon arriving at the Astral Plane, and another check every four hours thereafter until they leave the plane. If an astrally projecting spell-caster or psionic-user with the voyage to be slowed down, an additional encounter check is made for every four hours the journey is lengthened (see the section on *astral projection/astral spell* travel, above, for normal and modified travel times).

The Psychic Wind — As described earlier, there are times when the Psychic Wind manifests itself throughout a portion of the Astral Plane. The Psychic Wind may lengthen an astral voyage and produce more encounters if the time adds up. There is a 5% non-cumulative chance of encountering the Psychic Wind for every 24 hours (or fraction thereof) spent in astral space. To determine the effect of a Psychic Wind on those traveling astral space, roll a d20 and apply the appropriate result from the following list:

1-12   Astral-projection travelers are slowed by 3-6 hours. Other travelers using devices and the like cannot leave the Astral Plane during this time due to turbulence, except through color pools.

13-16   Those using astral projection are blown off course, and the party is lost for 2-20 days (one encounter check every 4 hours). The travelers must return to their physical bodies and try again. Other travelers cannot leave astral space during this time, even if using color pools.

17-19   Astral-projection travelers are blown off course, but with no extension of their travel time; a color pool leading to a random plane bordering the Astral Plane is arrived at. No effect on other travelers, save for the effects of darkness. Color pools may be used to enter other planes.

20   Psychic Wind storm; travelers who are using *astral projection* or *astral spell* must make a saving throw vs. magic (for the spell-caster or psionic), or the silver cord snaps and all are slain irrevocably. If the save is made, the group or person will be lost for 4-40 days (make one encounter check every 4 hours during this

time) and must return to the starting point where their physical bodies are. Those who are not astrally projecting are lost for 4-40 days, and thereafter only a spell, power, or device will enable them to leave the plane; before then, the turbulence in the plane prevents such travel. Color pools cannot be entered or used for viewing during this time.

The Psychic Wind is not a "wind" as such. When it occurs, the silvery atmosphere of astral space darkens considerably. During a Psychic Wind storm, the characters will be in virtual darkness all around, but will feel no actual wind blowing. *Light* spells will function normally during this time, as will torches (which burn with circular flames).

Movement & combat

Movement through the Astral Plane is accomplished by concentrated thought. For every point of intelligence a being has, a maximum of 10 yards per minute (melee round) may be moved; thus a character with a 12 intelligence can move as fast as 360′ per minute, or 6′ per second. It is of little use to try to measure the distance that one has traveled over a long period of time in the Astral Plane, or distances over line-of-sight range, as the Astral Plane itself is moving (the way wind blows around a flying bird) and the plane's vortices are themselves distorted in shape and size. Movement rates are useful in working out melee or exploration in astral space.

Sighting distances are much greater than normal in this plane. Surprise rolls are made as usual; unsurprised characters may see larger-than-man-sized beings at a range of 50-500 yards, and man-sized or smaller beings at 30-300 yards. A surprised party has only one-tenth the normal sighting range to their opponents.

Evasion may be attempted after sighting an opponent, and is automatically successful if the least intelligent member of the evading party is smarter (more intelligent) than the most intelligent member of the pursuing party. It is possible, of course, for a party to split up so that only its slower members are caught by pursuers; however, if some beings are joined together by holding hands or other means, their speed will not exceed that of the least intelligent being. Sudden stops and turns are possible astrally, and travelers will not be subject to any form of motion sickness no matter what they do.

Encumbrance affects a character's movement rate. For every 100 gp (10 lbs.) weight a character is carrying, the movement rate for that character is slowed by 10′ per round. Strength (or lack thereof) does not affect astral encumbrance; intelligence is the limiting factor. An unconscious person or one who is not concentrating on movement may be carried by another per-

son if so desired, at the carrying person's movement rate (with a deduction for the encumbrance of the burden being carried). Magical items have no effective weight for astral encumbrance purposes, but only if they are still magical when in astral space.

Three-dimensional combat in the Astral Plane is difficult to simulate. A detailed approximation of this would best use a hexagonal or square-grid playing surface without terrain features. Paper counters could be used to show how far above or below the playing surface someone or something is located, simulating a third dimension. Counters could also be used for each character involved in the melee. This system is similar to the one used in many outer-space combat games; the difficulty comes in having to calculate distances between two points in three-dimensional space. The scale that might work best for such games might be to have hexes or squares 30′ across (in game scale), with each move taking one minute. If this proves too complex, then a two-dimensional system may be used, ignoring the height/depth factor on the playing surface.

Though the Astral Plane has no sources of gravity, combatants are not thrown off balance by swinging swords, casting spells, and so forth, because all movement and orientation are governed by mental effort; characters fight, move, and act as if each were moving along a stable surface. Obviously, no two characters need appear to be moving along the same "surface," and one could move along just as well upside-down relative to everyone else in the melee.

One problem that occurs in combat concerns missile fire. When a character enters astral space, he is used to adjusting missile fire and thrown weapons to take into account the effects of gravity. As a result, he finds that his aim with both is too high. No arrows, sling stones, crossbow bolts, or hurled weapons will hit any targets over 30′ away as a result, unless the character realizes that he has to compensate for the lack of gravity. Once a person who is accustomed to using missile weapons enters the Astral Plane, he must roll his intelligence or less on a 3d6; success indicates that he realizes missiles will follow a straight line. This knowledge can be communicated to others. The first 2-5 missiles fired or weapons hurled will have a −2 penalty "to hit," but those afterwards are treated normally. If one enters the Astral Plane on subsequent adventures, the intelligence roll need not be made, but missile fire is still affected at first until the adjustments are relearned.

Long ranges are extended on the Astral Plane for missiles of any sort, because of the lack of gravity; short and medium ranges remain the same. The maximum range of any missile weapon is doubled, so a long-bow (for instance) would have a long range of 14″-42″. Long ranges do not extend to infinity, since the smallest fraction of error in aiming at a tiny distant target can result in a miss. The loss in accuracy overrides the lack of gravity, unless one is aiming at a

really big target, in which case the DM should use his best judgement on the results. Of course, a clever magic-user could invent a "smart arrow" that tracked targets by their innate intelligences, or one that used a *wizard-eye* guidance system . . . but that's another story.

Smart players may find it interesting and helpful to develop special tactics for their characters to use in astral combat, such as surrounding slower opponents and setting up defensive shields against the faster ones. Grappling and pummeling attacks are possible astrally, but not overbearing, since there are no gravitational surfaces against which a character may wrestle down an opponent.

Astral characters take damage as usual in AD&D melee combat. Those who entered the plane by *probability travel*, *plane shift*, device, or any other method in which the physical bodies of the characters are brought along can be wounded and slain in combat. Their bodies and equipment can be recovered afterward, and attempts may be made to raise them from the dead as usual (see previous note on the 1,000-year-to-1-day ratio). Any character who enters the Astral Plane by a form of astral projection, psionic or magical, and takes sufficient damage in combat to be slain, is immediately returned in spirit form to his home plane. The earthly bodies of these "slain" characters are not immediately awakened, however. The psychic trauma of being slain sends the body into a coma lasting 2-5 days, from which the character cannot be reawakened without use of a *wish*. A system shock roll must be made during this time, and if the roll fails, the character dies when the coma ends. The character cannot then be revived by any means short of a *wish*. If the system shock roll succeeds, the character will regain consciousness, possessing but 1 hit point upon awakening, and healing progresses normally. Until such time as the character regains more than half of his hit points (by normal healing, potions, ointments, etc.), no spell-casting is possible, movement is reduced by half, and attacks are made at −4 penalty "to hit" because of weakness.

The magical items possessed by an astrally projecting character who is slain on the Astral Plane will be returned to the Prime Material with the character's spirit if they: 1) still retain some magical properties on the Astral Plane; 2) were physically worn or carried by the character at the time of "death"; and, 3) make the character's saving throw vs. spells. All other non-magical items will be left behind on the Astral Plane, but may be recovered by other characters at a later time.

If the earthly body of an astrally projecting character is slain while the character is in astral space, the silver cord is sundered and the character's spirit vanishes at once, leaving all material possessions behind. The character is irrevocably dead. If the astrally projecting character was transporting other persons into astral space with him when his

body was slain, the other characters are instantly slain as well.

If the astral projector's material body is slain after the character and his allies have formed new bodies on an Outer Plane, the character and all accompanying beings (with whatever possessions they had at that time with their new bodies) will live on in the new form but will, of course, be unable to leave the plane without help. It is impossible, by the way, for a character to assume a physical shape different from his normal, earthly body when entering an Outer Plane.

There are very few creatures able to cut a silver cord. As mentioned in the *Legends & Lore* volume and the *DMG*, the Psychic Wind may tear the cord loose, but this is a rare happening. Certain githyanki may use their *silver swords* against silver cords. The most dangerous opponents astrally are deities; a demigod or god may elect to cut the silver cord of a group, and can do so by moving adjacent to the cord trailing behind the group, making a "to hit" roll against AC 0, and successfully rolling the deity's magic-resistance rating, which cannot be performed by any creature below demigod status. This will automatically sever the cord and permanently slay the group members using it, unless the spell-caster or psionic initiating the travel can make a saving throw vs. spells. If the deity's magic-resistance roll fails on the first severing attempt, subsequent rolls may be made without requiring another successful "to hit" roll against the silver cord.

Any character wounded while on the Astral Plane will not normally recover any lost hit points, no matter how long a time is spent there (unless, of course, one rests for 365,000 years in order to regain one hit point). Only the use of magical devices or spells, or the psionic discipline of *cell adjustment*, allows the recovery of lost hit points astrally. Once a wounded character leaves the Astral Plane, wounds may be naturally recovered from at the normal day-to-day rates. This applies to characters who were astrally projecting. If wounded but returned to his material body later, a character will suffer from exhaustion and may have sympathetic or imaginary pains in the parts of his body that were "injured," as a result of the psychic trauma of being attacked. No actual injuries will be present, so the hit-point loss is real and may be recovered in the usual ways. A character returned home while below zero hit points will be in shock and must make a system-shock roll in order to recover. Success places the unconscious character at zero hit points (until he heals); failure produces death (though the character may be *raised*).

Magical alterations

Many spells do not have their normal effects when cast upon the Astral Plane. Some of these spells have no effect at all astrally, for various reasons, while others may work only partially or in an unex-

pected manner. A few spells won't work astrally, but they won't be forgotten when cast; these spells may be re-cast at a later time (after the caster returns to the Prime Material Plane, or perhaps travels to a different plane), when they then take normal effect. Most spells cannot be cast from the Astral Plane to any other plane, or vice versa, through *gates*, color pools, or similar plane-linking effects from devices or spells (as noted in the AD&D module Q1, *Queen of the Demonweb Pits*), since the true distance between the planes exceeds the spell's range.

Unless a spell-caster has taken special precautions, any traveling done by *astral spell* will result in leaving behind all material components for spells, reducing the spell-caster to only those spells with verbal or somatic components alone.

Once a character enters the Astral Plane, spell recovery (regardless of the amount of time spent astrally) becomes more difficult. Clerics and druids may not recover any spells except 1st- and 2nd-level ones — unless the deity they worship normally resides on the Astral Plane, in which case they may recover any spell levels. Spell-casters may find that they have but one opportunity to pray or study for new spells after casting spells on the Astral Plane, and that subsequent attempts to recover spells will fail because of the magical properties of the plane. Certain cleric spells — *commune*, *divination*, and *spiritual hammer* — won't work on the Astral Plane unless the cleric's deity lives on that plane; this is because direct intervention by a deity or the deity's minions is required, and astral space is ruled by certain gods (though others may freely travel through it). However, clerics who worship gods dwelling on the Astral Plane may freely recover their spells as often as they desire, requiring only prayer and mediation to do so (with time limits as established by the *DMG*, page 40). PCs need only rest by becoming motionless and meditating.

Unless otherwise stated, a spell-caster must remain stationary on the Astral Plane when casting a spell; he cannot think about moving around and perform magic at the same time. Spell casting, in all other cases, cannot be hurried up in any manner, and if a spell is interrupted, it is lost. Spells may be cast from devices and scrolls in a normal manner, as detailed later in this article.

Those spells that normally affect a flat, planar area (such as *bless* and *haste*) instead, when cast astrally, affect a spherical area with a diameter equal to the normal spell's smallest dimension in area of effect. Thus, *bless* will affect all within a 5″ diameter sphere, *haste* and *slow* affect all within a 4″ diameter sphere, *tongues* affects all within a 6″ diameter sphere, and so forth. This does not apply to spells such as *hold portal*, *knock*, and *wizard lock*, which were designed to affect flat surfaces.

The Astral Plane is a poor conductor of heat or cold, making some spells like *infra-*

vision, which relies upon detection of heat sources, useless. A *fireball* could go off next to a character, and if the character was just outside the area of effect he would not feel the heat from the attack.

Fire-based spells that are cast at bodies of water on the Astral Plane will have no effect; they will be smothered immediately. Any fire spell that strikes a body of ice will usually have no other effect than to melt the ice down into water, immediately extinguishing the spell. Because all objects on the plane are effectively weightless, flame sources appear circular. Even though one would expect an open flame to be extinguished by its own waste gases if held immobile, this does not occur in astral space.

Astral travelers, though they will soon discover that they apparently do not need to breathe in astral space, are still susceptible to attacks of poisonous gas, drowning, and so forth; the poisonous or foreign material will find its way into the respiratory tract and do physical damage. These attacks will affect even astrally projecting characters, though as noted before this will not actually kill the affected characters, but will cause their spirits to return to their home plane.

Following are listed the spells from the *Players Handbook* which have unusual results when cast on the Astral Plane. When possible, reasons are given for why a spell malfunctions. If new spells are encountered or created by characters, the DM should arbitrate the effects on the Astral Plane, noting whenever possible the effects of any similar spells listed here.

Cleric spells

Aerial servant: No effect, as it normally opens a *gate* to the Elemental Plane of Air.

Animate object: Any object animated has no ability to travel on its own unless it is thrown or pushed, since it has an effective intelligence of 0; it could, however, wrap around or strike beings next to it.

Astral spell: No effect, as it must be cast on the Prime Material Plane.

Commune: No effect, unless the cleric's deity lives on the Astral Plane.

Conjure animals: No effect, as no natural environment exists astrally.

Control weather: See *conjure animals*.

Create water: Unless the spell is cast into a container, a large sphere of water will be formed (hovering in the virtual weightlessness of the plane). To calculate the size of such a sphere, note that the volume of a sphere is $\frac{4}{3} pi\ r^3$, that one gallon of water is about .1337 ft³, and have a calculator handy. The value of *pi* is about 3.1416. A sphere of water does nothing in astral space except float. If struck by a sharp-edged weapon, it is undamaged (the blade passes through it), but attacks with broad, blunt weapons will split the sphere into 2-5 smaller spheres of roughly equal size.

Though water spheres are interesting to look at, they are hazardous as well. Anything touching a water sphere for longer than one second will find the water adher-

ing to it and flowing over its surface, until the water completely covers the touching object. Living beings must make a saving throw vs. breath weapon or choke on water in their respiratory systems; failure to save means unconsciousness one round later and death in 2-5 more rounds thereafter, unless the water is somehow removed (such as by *destroy water*). Those who make their saving throws may leave the water sphere on the following round by moving out of it at full (mental) speed. The possibilities of using water spheres as weapons are obvious (with *telekinesis*, especially; the *telekinesis*-user would have to roll "to hit" with the water sphere as if using a missile weapon, with medium and long ranges determined by dividing the maximum range of the *telekinesis* spell into thirds), as are the disadvantages.

Though living beings do not need to breathe when on the Astral Plane, their lungs must be filled with the astral medium in order for its life-sustaining powers to have effect. This allows for the possibility of drowning if one touches a water sphere (see the cleric spell *create water*). The saving throw allowed assumes that the character tries to cover his nose and mouth. Nose plugs may be used, though there may be a chance that they will fail anyway.

Detect evil/good: Functions normally, though the plane itself radiates no alignment.

Detect magic: The entire plane radiates magic, making this spell useless to all except those who know the proper changes to exclude the "background radiation" from detection. Such changes may be discovered on a 5% cumulative chance after each unsuccessful casting of this spell.

Dispel evil/good: This spell will affect any creatures encountered on the Astral Plane of the appropriate alignments, including those from other planes. However, if used against aerial servants and invisible stalkers (and neutral creatures summoned from other planes), there is a chance (roll 1-2 on d6) that this spell will not work, because the neutral creatures were not in the act of performing a good or evil deed. Though all good or evil creatures and characters from other planes will be affected by this spell (no matter the method used to bring them to the Astral Plane), no neutral-aligned (lawful neutral, true neutral, or chaotic neutral) characters are affected, unless they are on a mission that would directly benefit the forces of good or evil. (Assume that this spell will affect neutral characters only if the majority of their associated party is good or evil in alignment.)

Dispel magic: This spell does not affect the inherent magical nature of the Astral Plane, but does affect spells cast by characters. If this spell is cast at a spell-caster or associated person traveling by an *astral spell*, it will (if successful) hurl the affected persons to their own plane. It won't do this to persons who arrived on the Astral Plane by any other means, psionic or magical. Casting *dispel magic* on a silver cord (of an

astrally projecting traveler) has no effect. If the caster of an *astral spell* is successfully struck by this spell, all those who came with him are cast to their home plane with the spell-caster.

Divination: See *commune*.

Earthquake: No effect unless cast upon a solid, non-living object of earth, clay, or stone.

Find the path: If cast immediately after an entrance into the Astral Plane, this spell will enable astrally projecting characters to go quickly to the nearest color pool to their desired plane. This cuts travel time by four hours, possibly eliminating an encounter check. This spell would have to be cast upon the caster of an *astral spell* in order to be effective.

Flame strike: This spell creates a 1"-diameter sphere of flames, much like a *fireball*, centered on the desired location within the spell range. It does normal damage.

Gate: No deities appear through the *gate* unless the Astral Plane is their home. Any other creature *gated* in knows immediately where it is and may leave if required to fight a creature or party whose experience-point total is two or more times greater than the creature's own value. *No* gated creature will hang around to fight a deity of any sort. Theoretically, one or more persons could pass hurriedly through a *gate* and go directly to any other plane of existence, but the person(s) would also be directly in the presence of a deity-class being, and this could prove problematic.

Holy/unholy word: This spell affects all creatures within its area of effect, *including* the spell-caster's party. Since nearly all beings except some deities are not normally from the Astral Plane, this should work against virtually any being encountered, and will cast its victims back to their home plane without further injury (regardless of how the creature got to the plane).

Insect plague: See *conjure animals*.

Locate/obscure object: This spell does not help or hinder characters in their journey to other planes through astral space, since the distances to color pools leading to other planes are usually beyond the spell's range.

Lose the path: This spell works to slow an astrally projecting party's progress through the Astral Plane by four hours, resulting in one extra encounter check while in astral space, but not necessarily during the spell's duration.

Lower water: This spell causes all free-floating water within its area of effect to move away from the spell-caster at a rate of speed equal to the caster's normal astral movement allowance. The reverse of this spell, *raise water*, has the opposite effect in drawing water directly toward the caster at the above speed. These spells could be used to save a drowning character (see *create water*).

Part water: This spell causes a water sphere (see *create water*) to separate into two equal-sized spheres (smaller than the original), separated by 1"/level of the caster.

This spell may be used to save a drowning character (see *create water*).

Raise dead: If used astrally, there is a 15% chance that an astral searcher may possess the raised body. Alignment and personality of the character are randomly changed; the referee may elect to have the player use the character as a "new" character or may run the character as an NPC. If the creature is *exorcised*, then another attempt may be made to raise the body and true spirit.

Resurrection: There is a 5% chance that an astral searcher may possess the body of the raised character. See *raise dead* for further details.

Speak with animals: This spell will work only with normal, non-fantastic animals brought with a person or party into astral space. No animals naturally occur on the Astral Plane.

Spiritual hammer: See *commune*.

True seeing: There is a base 100% chance, less 10% per level of the viewer, that the awesome reality of astral space as seen by this spell will overwhelm the viewer and cause him to remain inactive for the duration of the spell. Otherwise, it functions normally.

Wind walk: Aside from causing the spell-caster and associated persons to become misty and transparent, this spell doesn't affect a character's normal movement rate in astral space as determined by intelligence. However, persons carried with the spell-caster move at the caster's astral movement rate, not at their normal rate. This spell makes it difficult to see the affected persons against the background of astral space, and sighting distance to such characters is reduced to 10% of the normal distance.

Word of recall: Note the effects of using this spell when one's sanctuary is not on the Astral Plane (page 42, *DMG*).

Druid spells

A great many druid spells won't work in astral space because the items that they function with and affect (plants and animals) do not naturally exist there. There is no such thing as weather (as we know it) either, making spells related to that realm also unusable. If a plant or animal is brought with a creature-or-character into astral space, then spells may be cast upon the plant(s) or animal(s) and will function normally. For example, if a group in astral space has a dog, a druid could cast *invisibility to animals*, *speak with animals*, etc., successfully. For the most part, however, such spells are wasted. Spells summoning animals won't work, since no creatures able to be affected by them will occur naturally on the Astral Plane. Spells which fall into one of these categories, and are useless for those reasons, are the following:

Animal friendship, animal growth*, animal summoning (I, II, III), anti-animal shell*, anti-plant shell*, call lightning, call woodland beings, commune with nature, control temperature, control weather, control winds, creeping doom**, entangle, hold animal*, hold plant*, insect plague**, invisibility to animals*, locate animals*, locate plants*, pass plant, pass door, plant growth*, predict weather, repel insects**, speak with animals*, speak with plants*, summon insects**, transport via plants, wall of thorns, weather summoning.

* — These spells will work only on plants or animals that have somehow been transported into astral space. Otherwise they are useless.

** — It might be supposed that a druid who was determined (or crazy) enough could make effective use of these spells if he brought several beehives into astral space, but this is *extremely* unlikely.

Animal friendship won't work, even on animals in astral space, because the success of the spell depends in part upon the affected animal having an appetite — which does not occur on the Astral Plane.

Animate rock: No effect; the rock has no intelligence and thus cannot move in astral space (see the cleric spell *animate object* for details). *Animate rock* cannot make rocks wrap around creatures, change shapes, etc.

Call woodland beings would conceivably work if there were such beings in the spell's area of effect, but this is so remote a possibility as to make this spell useless.

Chariot of Sustarre: The chariot, coming from the Elemental Plane of Fire (as per the *DMG*), won't appear.

Conjure earth elemental and *conjure fire elemental:* No effect; normally opens to an elemental plane (Earth/Fire).

Create water: See cleric spell.

Detect magic: See cleric spell.

Dispel magic: See cleric spell.

Feeblemind: A feebleminded victim has an effective intelligence of 1, and that character's movement throughout the Astral Plane is likewise seriously reduced (30'/round).

Fire storm: In astral space, this spell creates a sphere of flame similar to a *fireball* of the appropriate volume. All other details are as per normal.

Fire seeds: See commentary on throwing missiles in astral space, in the section on movement and combat.

Hallucinatory terrain: This spell works as far as creating the illusion of a large forest, but who will believe it? Only those creatures of *low* intelligence or less (7 or below) will even consider this as possibly real; all others know better.

Obscurement: This spell forms a sphere, not a cube, with a diameter equal to the length of one side of the cube normally formed. Other effects are as normal, except that (as with *wind walk*) the sighting distance to the druid using this spell is cut to 10% of normal when viewed against the astral background.

Pass without trace: There is nothing to pass over and no tracks to cover, so this spell is useless in astral space.

Produce fire: This spell works only if cast upon a solid, non-living object in astral

space; the resulting flames affect anything within 5´ of the area of effect, even if the surface of the solid object used is curved or irregular. For example, *produce fire* could be cast upon a large rock discovered in astral space; if the rock had a surface area of 144 ft² (equal to the spell's usual area of effect), then everything within a 5´ radius of that rock would be affected by the flames it would give off. The formula for calculating the surface area of a sphere is 4 *pi r².*

Produce flame: See *fire seeds*, if the druid attempts to cast a produced flame at an opponent.

Transmute rock to mud: No effect unless cast upon a solid mass of rock. When it turns to mud, the rocky object will assume an almost perfect spherical shape in one turn if entirely transmuted by this spell. Anything coming in contact with such a "mudball" for one turn or longer will find itself facing a problem similar to that caused when one touches a water sphere (see the cleric spell *create water*). Obviously, people would easily be able to avoid drowning or suffocating in a mudball, unless they are unconscious or otherwise incapacitated. Mudballs cannot dry out in astral space. This brings to mind some interesting uses of a mudball, as a weapon or even as a form of execution; perhaps some adventurers, after encountering a wandering mudball on the Astral Plane, dig in — only to find a body at its center. . . .

Tree: This spell successfully turns the druid into a tree, but anyone who sees it will undoubtedly think it odd that a tree should be floating around in astral space, and will automatically be *very* suspicious of it — unless the creature seeing it has an intelligence of 7 or lower, in which case the viewing creature might possibly be fooled.

Trip: Since there is no gravity to make this spell work, and since movement doesn't depend on feet, this spell won't work on the Astral Plane.

Wall of fire: In astral space, this spell creates a hollow sphere of flames around the druid with a radius equal to ¹⁄₁₀´ per level of the spell-caster. The hollow sphere moves with the druid. Damage is as per the normal use of the spell, as are all other aspects.

Water breathing: One might believe this spell useless, but imagine a druid who creates a huge globe of water, casts *water breathing* on himself, and then enters the water sphere when confronted by astral opponents. The druid is now virtually immune to all fire-related spells, and any creatures who grapple the druid will find themselves covered in water (see *create water* in the cleric spell section) and drowning. Interesting, no?

Magic-user spells

Astral spell: See cleric spell.

Airy water: A magic-user with this spell is immune to having water spheres adhered to him, and is able to pass in and out of one with ease. See the druid spell *water breathing* for further comments.

Animal growth: Not generally usable; see the commentary at the start of the section on druid spells.

Anti-magic shell: No effect, since the spell-caster himself is not from astral space — technically making the magic-user a "summoned monster." Races native to the Astral Plane may use this spell normally, and may enter or leave the spell's area of effect as they please (since they aren't conjured or summoned).

Audible glamer: Magic-users should carefully consider their environment in order to make the best use of this spell astrally. Illusions should be as believable as possible to be effective (see the comments regarding visual illusions under the druid spell *hallucinatory terrain*).

Bigby's hand spells: The *interposing hand* stops all opponents who have an intelligence equal to or less than the spell-caster, and slow the forward movement of all others by 50%.

The *forceful hand* either pushes away, stalls, or slows opponents, depending on the difference between the caster's strength and that of the opponent. If the opponent is less intelligent than the magic-user, the *forceful hand* pushes the opponent away at a rate of speed equal to the difference in their intelligence scores. Opponents equally as intelligent as the magic-user cannot get closer, but won't be pushed away. Those smarter than the magic-user may advance at a rate equal to the difference between the opponent's and the magic-user's intelligence. For example, a magic-user with 16 intelligence casts a *forceful hand* at a berserk aerial servant (intelligence 4); the servant is repelled at a rate of 12´´ (120 yards, or 360´) per round.

The *grasping hand* can hold motionless any creature with an intelligence equal to or lower than the magic-user's. It repels creatures (if desired) at twice the rate of speed of a *forceful hand*, and slows the more intelligent opponents by 50% of the rate allowed by the *forceful hand;* thus, the aerial servant mentioned above could be held motionless, or pushed away at 24´´ per round.

Opponents stunned by a *clenched fist* cannot move astrally during that time. This spell won't necessarily slow or stop opponents otherwise. A *clenched fist* may hold, repel, or slow opponents at the same time as it crushes them, as the magic-user desires.

The *crushing hand* acts just as a *grasping hand,* except that it is designed to grasp and can crush an opponent for the stated amounts of damage. No *hand* spell can leave its maximum range, but it can hover at the boundary of that range if being employed to repel an opponent. As mentioned in the spell descriptions in the AD&D books, any *hand* spell is dispelled once it takes damage equal to the hit points of the magic-user who conjured it; a *hand* has the same armor class as the magic-user casting it had on the round the spell was begun.

Cacodemon: Because of the problems involved in casting this spell on an effectively weightless plane, it is useless in summoning a captive demon. Rather, it will attract the attention of one or more powerful demons in the Abyss, who will doubtless find it amusing to seek out the summoner and eat him as soon as possible. Referees should send 1-4 demons of either Type IV, V, or VI, each with 8 hp per hit die, arriving 1-4 rounds after the spell is cast.

Charm plants: This spell works only if a plant or plant-related creature is encountered in astral space; this is unlikely in the extreme.

Clone: Clones cannot grow in astral space; this spell is therefore useless.

Cloudkill: This spell will form a 2´´-diameter sphere of poisonous gas that moves in a straight line away from the spell-caster at a rate of speed equal to the caster's intelligence times ten, in feet per round. Since there are no natural winds in astral space, the cloud will remain unbroken unless it strikes a very large object (a *wall of force,* for example) that has a diameter of 10´ or more, in which case it breaks up on the following round. In three-dimensional space, the cloud is not too difficult to evade.

Cone of cold: If this spell strikes a water sphere (see cleric spell *create water*), it will freeze the outer surface into solid ice, to a depth of one inch per level of the magic-user casting the spell. A water sphere frozen solid will not melt on the Astral Plane; if any unfrozen water remains at the center of the sphere, the ice sphere melts from the inside out at a rate of one inch of thickness per turn. A *cone of cold* striking a mudball (see druid spell *transmute rock to mud*) causes the outer surface to harden to rock-like consistency; as with an ice sphere, a frozen mudball could either stay frozen or return to a muddy state, depending on whether any unfrozen mud remains at the center. A crust of only one-quarter inch thickness per level of the magic-user casting the *cone of cold* forms on a mudball, making it likely that large mudballs will defrost themselves eventually.

Conjure elemental: No effect; normally opens to an elemental plane.

Contact other plane: Keep a careful record of how many planes removed the power being contacted is from the caster. A deity on the Elemental Plane of Water would be two planes removed from astral space (through the Ethereal Plane), and one on the 8th plane of the Abyss is eight planes removed.

Control weather: See the druid spell.

Death spell: This spell is ineffective against undead and supernatural beings from the Astral or Outer Planes. Travelers from Prime Material Planes may be affected, as are githyanki (who are human).

Detect evil/good: See cleric spell.

Detect invisibility: No ethereal or out-of-phase things will be seen, but the spell functions otherwise as written. Once a color pool no new plane has been reached, this spell may be used to see any nearby invisible, hidden, ethereal, or out-of-phase beings

or objects on the new plane.

Detect magic: See cleric spell.

Dig: This spell is effective only against solid, large objects of earth, clay, or mud, such as matter islands and mudballs (see druidic spell *transmute rock to mud*). If dig is cast on an object, the object slowly disintegrates into a huge cloud of dust particles that spread out in a hemispherical shape from the digging point. Every cubic foot of dug material expands to fill a volume of 1,000 ft³ around the digging point. Within this area, all living creatures must make a saving throw vs. wands every round or be blinded for the entire round; victims must also save vs. breath weapon or choke on small particles for the full round, being unable to move, attack, defend, or take any other action. Both saving throws are rolled at the start of each round following the round in which the *dig* spell was cast, continuing through the round after the spell duration expires. Visibility within the dust cloud is reduced to 30′. Beyond the cloud radius, the dust is thin enough so as not to affect anyone. The cloud dissipates on the round following expiration of the spell duration. Needless to say, anyone within the radius of the cloud is going to be in dire need of a bath.

Note that the spell's range (3″, or 90′) puts most magic-users who might cast the spell well within its area of effect; this would probably lead to an abrupt termination of the spell unless the magic-user is otherwise protected. The volume of a hemisphere is ⅔ pi r³; the cloud's radius can be calculated from this formula, since the volume of the hemisphere is already known. Inventive characters might create goggles for themselves if they plan to use *dig* spells frequently.

Dimension door: Works normally in the Astral Plane; one need not have a solid "floor" underneath the point one which one appears.

Dispel magic: See cleric spell.

Distance distortion: No effect; not only is there no terrain to be affected in this environment, one cannot get an earth elemental, either.

Drawmij's instant summons: Note the changes that must be made with regard to the distances between other planes and the Astral Plane. Items can be summoned from the Elemental, Positive Material, and Negative Material Planes, but would have to go through the Ethereal and Prime Material Planes to reach the Astral Plane.

Duo-dimension: No effect; this must be cast on an Outer or Prime Material Plane.

Enchant an item and enchanted weapon: No effect; the magical properties of the Astral Plane effectively "rub out" all spell effects. Note also that this does not apply to native spell-users like githyanki, who have learned to overcome the plane's effects.

Feather fall: If cast upon a missile in astral space, the missile won't slow down but does no damage if it strikes, bouncing off targets as if it were made of paper. If cast upon other non-living objects, it reduces

their total mass (as per the spell description) and make them easier to push or carry astrally (see the previous section on encumbrance). If cast upon a living being in the astral realm, that person will be able to carry (without penalty) an additional mass of material equal to the person's normal body weight, for the duration of the spell.

Feeblemind: See druid spell.

Find familiar: The creature summoned by this spell will be a minor Outer Planes creature similar in power to an imp or a quasit. The creature will be of the same alignment as the spell caster. Because of the variety of creatures that could be encountered, the specific effects of this spell will vary from case to case and plane to plane. Note that this spell does not summon a being from an Outer Plane; it merely attracts creatures residing upon or passing through the Astral Plane.

If a magic-user has his familiar with him in astral space, the creature can move at a rate equal to that of the magic-user if within 12″ of the latter. Beyond that range, the creature moves at a rate determined by its natural intelligence score; a minimum intelligence score of 2 is suggested for familiars, since they are noted as being "abnormally intelligent" in the *Players Handbook*.

Fly: No effect; the movement system of the Astral Plane makes it useless. If cast, the spell won't be forgotten and may be re-cast later.

Fumble: If the victim of this spell makes a saving throw, he is slowed in all respects except movement (which depends upon intelligence, which is *not* slowed). Those who fail to save will be unable to make any attacks (because they are dropping weapons, missing grappling attempts, etc.) but can defend themselves. Further, any actions undertaken that involve manual coordination will be completely muffed for the spell's duration.

Gate: See cleric spell.

Gust of wind: This spell will not affect the movement of any intelligent, living creatures on the Astral Plane, but may push relatively small, non-living objects (such as spheres of fire, ice, mud, dust, or water). Since objects are weightless in astral space, things pushed away by this spell will continue to move away from the caster even after the spell's duration ends, at a speed of 1″ (10 yards) per round per level of the caster who uses the spell.

Hallucinatory terrain: No effect; no terrain in astral space exists that could be so affected. This spell is not like the druid spell of the same name.

Haste: This spell will *not* increase a character's movement through the Astral Plane, since movement depends on intelligence, which the spell cannot "hasten." It will affect other abilities and actions as usual, most notably the number of attacks per round in a combat situation. (See the comments below for the *slow* spell.) Interestingly, when *haste* is cast upon the Astral Plane, the recipient of the spell will *not* age one year as a result due to the plane's "neu-

tralizing" effect on metabolism.

Hold portal: Generally a useless spell; there are few "portals" as such in astral space — except in extremely rare constructed dwellings.

Ice storm: If cast in the first form (hailstorm), this spell will cause 60-600 hailstones to appear within a 4″-diameter sphere. The hailstones will average about one pound apiece in weight (mass), and won't move when they appear. Any character or creature caught within the area of effect will be unharmed by the appearance of the hailstones, but won't be able to move faster than 2″ (60′) per round within the area of effect because of the effort involved in avoiding collision with the hailstones as they appear in various places. Spell casting within the area of effect is possible, since hailstones won't strike a stationary person.

The hailstones will not disappear after the spell duration expires, and may be used as missiles hurled by physical force or by a spell (see the section on astral combat with regard to hurled or launched missiles). A physically hurled hailstone will do 1-4 points damage to anyone it strikes, plus the caster's strength bonus to damage ("to hit" bonuses for strength and dexterity are also factored in). Note that very weak persons might possibly do *no* damage when hurling a hailstone, even if it strikes a target. If a spell like *telekinesis* is used to move the hailstones about as missiles, the hailstones will do 1 point of damage for every 1″/ second (10 yards/second) of velocity they have; thus, a hailstone moving at the maximum velocity of 1024″/round (30720′/ round, or about 170 yards/second) will do 17 points of damage to an opponent it strikes. As mentioned elsewhere, ice does not melt in astral space (unless exposed to a heat source, of course).

If cast in its second form (sleet), an *ice storm* spell will cause an 8″-diameter sphere of slushy droplets to form. (This could conceivably be compacted into a slush/water globe.) Any creatures caught inside the area of effect are effectively blinded for the entire round, and all attacks by them are made at −4 "to hit." Movement through or out of the "sleet sphere" is possible as usual. Any fire-type spell cast within the area of effect of a "sleet sphere" will do only one point per hit die of damage the spell normally causes, and will create a heavy mist (zero sighting distance) of a diameter equal to 10′ for each die of damage the spell normally causes. This misty cloud will dissipate in 2-5 rounds.

Imprisonment: Any creature struck with this spell is immediately teleported to a random location within the endless reaches of the Astral Plane, and rendered unable to move of its own volition. Thus, the creature is effectively lost forever upon the plane, but a *freedom* spell will return the creature to the spot where the spell is cast (when performed upon the Astral Plane). Any being struck by *imprisonment* won't die during the time spent lost upon the plane, and won't have aged no matter how long he,

she, or it is lost. There is a chance, however, that a *freedom* spell will fail to work. This chance starts at 1% and increases at a cumulative rate of 1% per year until a maximum failure rate of 99% is reached after 98 years of *imprisonment*. A *wish* used in conjunction with a *freedom* spell increases the chances of a successful casting by 20%, though there will always be a 1% chance of failure, no matter what.

Incendiary cloud: This spell will form a spherical cloud of 100 times the volume of the available flame source, with a minimum diameter of 20′. All other spell effects are as per normal.

Infravision: Because the Astral Plane does not transmit heat or cold, this spell will be useless. The Astral Plane is well lit by a diffuse light anyway, so the spell would not be needed at any rate (save inside certain dwellings).

Invisible stalker: No effect; normally opens to the Elemental Plane of Air.

Jump: This spell cannot work astrally, for the same reason the *fly* spell won't work, but it won't be lost and may be re-cast at a later time.

Knock: See the notes on the magic-user spell *hold portal* for relevant comment. This spell could prove useful for opening locks, untying knots, and similar tasks.

Leomund's secret chest: No effect; it must be used on the Prime Material Plane, and contact with Ethereal Plane is required.

Leomund's tiny hut: Useless; there is no need to regulate temperature or gain protection from the weather astrally, and the opaque field is highly visible against the astral background (possibly attracting wandering monsters).

Levitate: Though this spell won't affect movement through astral space, it does allow the user to carry an additional amount of mass without being encumbered, up to 1,000 gp (100 pounds) per level of the spell-caster.

Locate object: See cleric spell.

Lower water: See cleric spell.

Magic jar: There is a 10% chance per turn that an astral searcher will possess the spell-caster's body while it is vacant. The magic-user cannot force the creature from the body alone, and *exorcism* is required.

Magic missile: Ignore the penalties applied to hurling or launching missiles astrally; *magic missiles* do not miss.

Massmorph: This spell works, but see the druid spells *hallucinatory terrain* and *tree* for relevant comments.

Maze: This spell entraps the victim inside a 5′-diameter cube of force walls, appearing around the character where he is on the Astral Plane when the spell is uttered. The spell's duration depends on the character's intelligence, as per the spell description. The character cannot move about astrally until he is free of the miniature maze; the character is also incidentally protected for the duration of the spell from all attack forms that a *wall of force* resists. A *disintegrate* spell immediately removes the *maze* without harming the victim inside.

Monster summoning: Unless the DM has created or discovered a monster that fits within the parameters of each *monster summoning* spell (I-VII), nothing is summoned. This spell only attracts creatures wandering through the Astral Plane, and does not bring anything directly from an Outer Plane. Examples include *monster summoning I* (which may bring manes), *monster summoning II* (lemures), and *monster summoning VI* (erinyes). Regardless of who casts this spell, only creatures from the lower (evil) Outer Planes are summoned by this spell on the Astral Plane.

Mordenkainen's faithful hound: The *hound* circles within a 3″ radius about the magic-user who cast the spell, looking for anyone who enters the area of effect (anyone larger than a house cat). The *hound* attacks anyone in range (except the caster) from behind or from one side; it warns away intruders beforehand with loud barking when they get within 30′ of the boundary of the area of effect. All other characteristics of the *hound* are as per the normal spell.

Mordenkainen's sword: This weapon can be used to attack opponents on other planes when wielded upon the Astral Plane; it can reach the Ethereal or Prime Material Plane, or the first layer of any Outer Plane, through a color pool. The sword-user is not made subject to attacks in return, unless the opponent is capable of bringing this about (like medusas).

Move earth: This spell affects masses of soil, clay, or mud (see the druid spell *transmute rock to mud*) in the same manner that the cleric spells *lower water* and *raise water* affect masses of water. All soil, dirt, and mud within a 4″ diameter sphere is either drawn toward or pushed away from the magic-user at the same rate of speed as the magic-user normally moves in astral space. Small rocks (under one pound in mass) can be moved with this spell, but larger ones resist it. The magic-user can move the material in other directions (left, right, up, down) as desired.

Otiluke's freezing sphere: In a manner similar to that described under *cone of cold*, this spell can freeze water spheres or mud balls in astral space. Any form of the spell striking water freezes a total of 50 ft³ per level of the spell-caster. This ice won't necessarily melt unless in contact with a heat source or unfrozen water.

Part water: See cleric spell.

Passwall: Useful only on a large, solid object, such as a constructed dwelling or matter island. See *phase door*.

Phantasmal force: See relevant commentary under *audible glamer*.

Phase door: Useful only on a large, solid object, like a constructed dwelling or matter island. This spell and *passwall* might be helpful in getting someone or something out of a mudball (see the druid spell *transmute rock to mud*).

Plant growth: Generally useless; see the text at the start of the section under druid spells.

Power word blind: Affects a 3″ diameter sphere.

Power word kill: Affects a 2″ diameter sphere.

Power word stun: Any creature so stunned is unable to move until recovered, and cannot attack or defend.

Repulsion: This spell functions much like *Bigby's forceful hand*, in that it repels opponents depending on the difference between the opponent's and magic-user's intelligence scores. The area of effect is a 1″-wide cylinder as long as the spell range; obviously, opponents could concentrate on moving sideways out of the spell's area of effect, making it of limited use in a three-dimensional sphere. Creatures of low intelligence (7 or less) won't immediately think of using such a tactic to counter this spell, and so may be pushed away easily on the first try; they learn to go sideways after the next 1-7 tries (based on intelligence, i.e., 7 = 1, 6 = 2, etc.).

Rope trick: No effect; the extradimensional space is outside the Astral Plane.

Sleep: Because astral space inhibits sleeping, this spell has no effect on anyone.

Slow: This spell does not slow down a victim's movement, since that depends on intelligence (which isn't affected by this spell). Other manual activities are affected, including attacks.

Spider climb: Useless, since objects on the plane are weightless to begin with.

Spiritwrack: While this spell would be effective against a named demon encountered astrally (though the chance of meeting any particular demon named in such a spell by accident is extremely low), there is a good chance the demon might be on an outing with some friends — they won't be affected by the spell, and might express their displeasure with the spell caster in various ways.

Stinking cloud: This forms a 2″-diameter cloud which cannot be moved by the spell-caster. Creatures may move out of the cloud, but if they fail the saving throw cannot do anything else but move while in the cloud or on the round after leaving the cloud.

Symbol: Unlike the cleric spell of the same name, this spell must be cast upon a solid surface. Cleric *symbols* can be inscribed in the "air" of astral space.

Telekinesis: See the comments for the cleric spell *create water* and the magic-user spell *ice storm* for some interesting possible uses of this spell. One gallon of water weighs 3.45 lbs. This spell works in all ways as described; if employed against a living, conscious opponent, the opponent is slowed until the movement rate of the foe exceeds the opponent's movement rate, at which time the opponent is at the caster's mercy. As the opponent can continue to resist (mentally) the spell's effects, subtract the foe's normal movement rate from the spell's movement rate to get the effective speed.

Teleport: No effect unless one *teleports* within the Astral Plane to a solid surface (like a matter island). This spell won't be

forgotten and may be re-cast later.

Tenser's floating disc: The *disc* follows the caster about, regardless of the caster's rate of movement, within a 2" radius sphere. When the spell duration ends, anything the *disc* was carrying then follows a direct-line path at a constant velocity, moving at the same rate of speed and in the same direction that the now-expired *disc* maintained.

Transmute rock to mud: See druid spell.

Trap the soul: Note some of the conditions applicable to persons captured by this spell when not on the Prime Material Plane. If used against an astrally projecting person, the material body dies on the Prime Material Plane, but the character's soul still lives on within its prison. Imprisoned characters cannot cause their gem-prison to move or otherwise affect their environment. If released upon any plane other than the Astral Plane, the soul forms a new body (having no possessions) with all of the former body's characteristics; if released upon the Astral Plane, the soul forms an astral searcher; this form is permanent.

Vanish: No effect; contact with the Ethereal Plane is required.

Ventriloquism: See *audible glamer.*

Wall of fire: This works very much like the druid spell *wall of fire,* except that the hollow sphere of flames has a radius of 1" + ¼" per level of the spell-caster.

Wall of force: The surface area of a sphere (the best defensive shape in three-dimensional space) is 4 *pi* r².

Wall of ice / wall of iron / wall of stone: Any such *walls* created in astral space are immobile, doing no harm to anyone. A *wall of ice* won't melt unless hit with a fire spell or other heat source, at which time it forms a water sphere (see the cleric spell *create water*). A *wall of stone* may be struck with *transmute rock to mud,* at which time it forms a large mudball (see the druid spell *transmute rock to mud*), though the unaffected part of the *wall* may drift to the center of the mudball.

Web: This spell requires anchoring points in order to form a true weblike structure; at best in astral space, it may be directed at a single opponent, who then becomes entangled in the mess of webbing, unable to attack or pull free. If a saving throw is made, the opponent has escaped all contact with the webs. Suffocation is possible, as per the regular spell.

Wish: No *wish* spell ever affects the rulers of the plane that the spell is on; *wishes* directed against any deity in general are sure tickets to disaster if the intent of the *wish* is hostile. The Dungeon Master should arbitrate any casting of this spell very carefully in any event.

Wizard lock: This spell is more useful than a *hold portal,* as it may be cast upon chests or containers.

Write: Usually no effect; ink cannot flow through a pen in a weightless environment. If a special, forced-ink pen is devised by the experienced planar traveler, the spell can be used.

Illusionist spells

Any illusions and phantasms cast upon the Astral Plane should be carefully considered in order to be effective. If an illusion depicts something that a viewer or opponent would not normally expect to see upon the plane, then the saving throws for opponents are considered automatically made, and a bonus of up to +4 may be given to any other (non-hostile) viewers.

Some illusionist spells are essentially the same in intent and effect as other spells previously described. These spells (and the section in which each is elaborated on) are: *astral spell* (cleric); *conjure animals* (cleric); *detect magic* (cleric); *first-level magic-user spells* (magic-user); *maze* (magic-user); *rope trick* (magic-user) and *hallucinatory terrain* (druid). Other illusionist spells with altered effects on the Astral Plane are:

Alter reality: See comments for the magic-user spell *wish.*

Color spray: Stunned or unconscious characters cannot move until recovered.

Paralyzation: Because the intelligence of the victim of the spell is unaffected, the character can still physically move through astral space. However, the arms, hands, feet, mouth, etc., cannot be moved, and attacking or defending by physical means is not possible.

Shadow monsters: All monsters produced have only half the given hit points allowed for them and do only half the given damage against victims who make their saving throws, due to the remote position of the Astral Plane with respect to the Plane of Shadow.

Summon shadow: No effect; normally opens a gateway to Negative Material Plane.

True sight: See comments for the cleric spell *true seeing.*

Vision: No contact may be made with deities or powers on the Elemental Planes, Positive or Negative Material Plane, or the Ethereal Plane.

Magic-item alterations

Potions: Those potions that duplicate spell effects (such as *climbing, flying,* or *speed*) have the same result when used in astral space as the spell itself. Some potions obviously become useless when taken to another plane where their powers may take effect (*e.g., oil of etherealness*). *Gaseous form* makes the imbiber hard to see, as per the cleric spell *wind walk.* Potions of *longevity* and *speed* won't affect the age of the imbiber, due to the "neutralizing" effect the Astral Plane has on living metabolisms.

Though weightlessness presents a problem when one is trying to drink a potion, this can be overcome. Use of a regular potion bottle is time-consuming, since the contents won't flow naturally out of the bottle unless one shakes the bottle as we normally shake ketchup bottles. Unfortunately, this makes it hard to drink the potion without choking. Consumption of a potion takes 1-4 rounds, with a 5% non-cumulative chance per round that the user chokes (without drowning) and loses all benefits of the potion. Squeezable wine-skins, flasks, or bottles would resolve this problem, as would the use of straws, syringelike pumps, and so forth. Drinking a potion would then take only one round.

Scrolls: Scroll spells work the same as normally cast spells on the Astral Plane. If someone using an *astral spell* contacts or is caught within the area of effect of a *protection from magic* scroll, the person is immediately cast back to the home plane and the protection spell is cancelled. All those who accompanied the *astral spell* user are also returned to their home plane. If the *astral spell* caster himself read the scroll, he and all with him would be hurled homeward instantly — a nice escape hatch, if required.

Rings: As for potions, those rings that duplicate spell effects have the same effect astrally as the spells does. *Djinni summoning* rings do not work, being unable to open the gate to the Elemental Plane of Air. *Shooting stars* rings do not work at all, being dependent upon a dark environment (night) on the Prime Material Plane. If a resonating field is created between two *rings of spell turning,* read all rolls of 98-00 for subsequent effects as rolls of 81-97. *Protection* rings are modified in effect as described in the following section on weapons, armor, and protective devices.

Rods, staves, and wands: Any such devices duplicating spell effects have the same effect astrally as the spells does. A *rod of rulership* has no effect on any deities or minions who normally reside on the Astral Plane, just as it cannot affect any deities or their minions when used on their home Outer Plane. A *rod of absorption* could easily absorb (and cancel out) an *astral spell*; if it is used against the magic-user who cast the spell, all persons in the astral party are hurled back to their home plane. *Rods of lordly might* lose their third (direction-finding) mundane ability on the Astral Plane; this rod, along with the *rod of smiting,* has altered abilities when used as a weapon, as further detailed in the following subsection on weapons, armor, and protective devices. A *staff of withering* won't age astral beings who are struck by it.

Miscellaneous magic items: Some general statements may be made on the effects of using miscellaneous magic items on the Astral Plane. First (and most obviously), if such a device duplicates the effect of a spell mentioned in this article, then refer to the text for appropriate comments. Any device that summons creatures from the Elemental, Positive, or Negative Material, or Ethereal Planes won't work at all. Artifacts and relics are completely unaffected in any operation by being in astral space. Certain devices are obviously useless (*e.g.,* the *apparatus of Kwalish*).

An *amulet of the planes* transports the user to any of the first layers of the Outer Planes or back to the Prime Material Plane, but not to the Ethereal, Positive or Negative Material, or Elemental Planes from the Astral Plane. A *book of infinite spells* won't work if the user left it on another plane.

Cubic gates may open gates to any plane from astral space, even those not normally reachable by other means. Devices requiring contact with or assistance from deities (*candle of invocation, incense of meditation, necklace of prayer beads*) won't work unless the user's deity normally resides on the Astral Plane. *Iron flasks* may capture player characters or other creatures not originally from the Astral Plane, but won't affect beings native to the Astral Plane. When in astral space, certain devices that use extra-dimensional spaces to store items in either expand abruptly so that the exterior of the container conforms to match its interior capacity (*bag of holding, portable hole*), or cease functioning (*mirror of life trapping*). A *phylactery of long years* cannot slow aging, since normal aging doesn't take place. A *well of many worlds* opens a passageway to any plane, as a *cubic gate* does.

A *talisman of pure good* (or *talisman of ultimate evil*) causes its victims to be lost permanently (*wishes* notwithstanding) in astral space. A *chime of hunger* will *stun* all nearby for one round, with no other effects.

Weapons, armor, and protective devices: When such items are brought into the Astral Plane, the enchantments upon them are lessened, since their locations are so closely connected to the Prime Material Plane. One "plus" is subtracted from such items' bonuses, on "to hit," damage, or protection scores. Thus, a *sword +1* becomes a *sword +1*, a *ring of protection +3* becomes *+2* in power, etc.

If an item has only a +1 bonus, it becomes non-magical and loses all its special powers on the Astral Plane (so *luck blades* have no usable wishes). Items with multiple enchantments lose one "plus" from each type of enchantment; a *flame tongue* sword would thus be non-magical for most purposes, with a +1 vs. regenerating creatures, a +2 vs. cold-using creatures, etc.

Obviously, any items that normally allow the user to go *ethereal* or use any other similar powers will have their protective enchantments (reduced one step), but those powers won't be usable. Cursed items with negative enchantments (*shield −1, missile*

attractor) also have their enchantments moved one step toward zero (making the *shield −1* non-magical in all respects); if a cursed item is made non-magical, the curse is lifted so long as the item is not brought back into the Prime Material Plane. Protective rings, cloaks, and so forth have their powers reduced by one "plus," but *bracers of defense* and similar items remain unaffected. All other spell-like powers of such items are affected as described in the section of this article on alterations of magical spells.

As one might expect, magic items made on any Outer Plane are reduced one "plus" in effectiveness if taken to the Astral Plane, and two "plusses" if taken to the Prime Material Plane. Some interesting adventures might be structured around a weapon or artifact which, on the Prime Material Plane, is quite weak — but which becomes dangerously powerful when taken closer to its home plane (such as the Abyss).

Weapons and devices which are innately intelligent are not able to move about in astral space as normal living beings can do. A sword's intelligence is one that is not normally accustomed to moving about on its own; it is dependent upon its user for movement and for sensory input (in short, the sword is blind, deaf, and immobile until picked up by a fighter). *Swords of dancing* may still "dance" in astral space, as normal, however.

Assorted notes

It is possible that a lycanthrope (either a human spell-caster, scroll-user, or device-user) might be encountered in astral space. The DM may allow 1% of all humans encountered to be lycanthropes of assorted types. Lycanthropes of any sort assume wereform only as a result of melee injury or the casting of certain spells (as noted in the *DMG*, page 22) if the creature has been a lycanthrope for less than six years. Those having lycanthropy for six years or more are able to change into wereform at will. Solitary weretigers and packs of wererats and werewolves are the most likely ones to be encountered. The former usually masquerade as magic-users, especially if they have a cat or two with them; the others may pretend to be humans of any class.

Psionic powers are described as follows: *Astral projection* and *probability travel* are described above. *Body equilibrium* affects the user as a *feather fall* spell would. *Cell

adjustment* allows astral healing. *Mind over body, suspend animation, dimension walk,* and *etherealness* have no effect if used astrally. *Teleportation* is as per the magic-user spell *teleport*. All other psionic attacks, defenses, and powers are as normal (or as per the spell of the same name). Anti-magical spells and devices have no effect upon psionic powers, of course. Psionic strength points are recovered as follows: hard exertion (fighting), none; when moving by mental effort, 6 points/hour; and, when "floating" while thinking of moving (rest), 12 points/hour.

Normal speech is possible on the astral plane, if one simply inhales the astral medium and speaks normally while exhaling. Normal conversation can be heard out to 60' from a speaker, and shouted commands can reach 240 yards. The astral environment is permeated by a sound-deadening effect resulting from the lack of echoes in the environment, so astral space seems extremely quiet — which makes some people feel like whispering, further reducing the chances of their being heard at any significant distance.

An optional rule is available if the DM feels magic-users and other bright characters need an extra break on the Astral Plane. Intelligence can affect armor class as dexterity normally does. Since intelligence guides movement, smart beings should be better able to get out of the way of sword blows and missile fire. Beings (including PCs and NPCs) would gain bonuses to their armor classes (in addition to dexterity bonuses) by reading their intelligence scores as secondary "dexterity" scores, and using the armor class adjustments from the *Players Handbook* (page 11). Thus, a magic-user with a dexterity of 15 and an intelligence of 17 would gain a total armor class adjustment of −4. This rule is optional, as it may cause some characters (particularly smart barbarians, if there are such things) to become virtually immune to attacks. Use of this rule should depend upon the DM's assessment of its effects. Note that if this rule is adopted for player characters, it *must* be used for non-player characters and monsters — and if you thought that an astral deva already had a low armor class, factor in the 18 intelligence of a particularly bright one and see what happens. . . .

Though infravision does not function on the Astral Plane, ultravision functions at double-normal ranges, due to the local conditions.

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